

AMATEUR ELECTRONIC SUPPLY®

**Fall
1987**

CONDENSED LISTING OF NEW AMATEUR RADIO EQUIPMENT

AEA KEYERS

KT-2 Keyer/Proficiency Trainer	D*	\$149.95	79 ⁹⁵
KT-3 Keyer/Basic Trainer	Dwc	149.95	89 ⁹⁵
AC-1 12vdc 600ma adaptor; KT-2/3		19.95	14 ⁹⁵
BT-1 Basic Trainer	D*	109.95	49 ⁹⁵
AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
DC-1 Cig cord; all but BT-1P/MT-1P		6.95	5 ⁹⁵

CW/RTTY UNITS

CP-1 Computer Patch Interface w/ps	Dmc	\$239.95	149 ⁹⁵
CP-1/20 Interface/ps/VIC-20 MBA Text pack	Dw	274.95	169 ⁹⁵
CP-1/64 Interface/ps/C64 MBA Text pack	Dmfcve	274.95	199 ⁹⁵
RS-232-2 Option for CP-1	D	39.95	29 ⁹⁵
MP-1 MicroPatch	Dmfcve	159.95	59 ⁹⁵
CP-100 Deluxe Computer Patch		369.95	289 ⁹⁵
CP-100/T64 Deluxe Patch/C64 MBA-TOR pack		429.95	319 ⁹⁵
AC-1 12vdc 600ma ps for CP-100 or MP-1		19.95	14 ⁹⁵
RS-232-3 Option for CP-100 (specify sn)		39.95	29 ⁹⁵
Loop keyer option for CP-100		24.95	19 ⁹⁵
CP-1/VIC-20-1 RTTY only software tape	Dmfcve	29.95	2 ⁹⁵
MBA Text 20 VIC ROM/cable/overlays	Dmfcve	109.95	29 ⁹⁵
MARS Text 20 VIC-20 ROM/cable	Dmfcve	109.95	39 ⁹⁵
MBA-TOR 20 VIC-20 RTTY/AMTOR ROM	Dmfcve	119.95	69 ⁹⁵
SWL Text 20 VIC-20 ROM software	Dmfcve	119.95	69 ⁹⁵
MBA-TOR 64 C64 RTTY/AMTOR ROM		119.95	89 ⁹⁵
SWL Text 64 C64 ROM software		119.95	89 ⁹⁵
CP-1/Apple-1 RTTY/CW/ASCII software		39.95	29 ⁹⁵
CP-1/IBM-PC Software; use RS-232-2 w/CP-1		59.95	49 ⁹⁵
CP-1/Heath H89-1 Software; use RS-232-2	Dmfcve	89.95	49 ⁹⁵
CP-1/TRS-III-1 MBA Text software	Df	149.95	69 ⁹⁵
MP-20 MicroPatch w/VIC-20 hard/software	Dmfcve	179.95	49 ⁹⁵
MP-64 MicroPatch/C64 hardware/software	Dmc	179.95	69 ⁹⁵
AC-1 12vdc 600ma adaptor; Micropatch		19.95	14 ⁹⁵
MBA tilt stand for MBA-RO	Dmv	12.95	4 ⁹⁵
TI-1 RTTY/AMTOR tng/shift indicator w/spkr	Dmfcve	119.95	79 ⁹⁵
ATU-1000 Advanced terminal unit		1495.00	1149

PACKET UNITS

PKT-1 Packet controller	D	\$589.95	469 ⁹⁵
AC-4 12vdc 1A power supply		29.95	24 ⁹⁵
PK-64 Pakratt Packet controller w/ps; C64 D		259.95	179 ⁹⁵
PK-64A Pakratt Packet controller; C64 w/ps D		319.95	229 ⁹⁵
HFM-64 HF modem for C64	D	119.95	99 ⁹⁵
Extra PK-64/64A to radio cable		9.00	
PK-64/HFM PK-64 with HFM-64 installed	D	379.95	229 ⁹⁵
PK-64A/HFM PK-64A with HFM-64 installed	D	429.95	289 ⁹⁵
PK-80 (TAPR Clone TNC-2) RS-232 controller	Dmc	259.95	159 ⁹⁵
PK-87 (TAPR Clone TNC-2) RS-232 controller		199.95	179 ⁹⁵
AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
PK-232 Data controller/int VHF/HF modem/FAX		379.95	299 ⁹⁵
AC-4 12vdc 1A power supply		29.95	24 ⁹⁵
PC-Pakratt program for IBM		29.95	24 ⁹⁵
COM Pakratt program for C-64		69.95	59 ⁹⁵
PK-232 technical manual		20.00	
PM-1 HF packet modem for any TNC		199.95	169 ⁹⁵
AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
PM-1 to PK-80 cable		11.95	

AMTOR UNITS

AMT-1 AMTOR processor unit	Dm	\$589.95	199 ⁹⁵
AMT-1 CW receive board	Dmve	69.95	19 ⁹⁵
AMT-1/VIC-20-1 ROM software cartridge	Dm	59.95	19 ⁹⁵
CHIRP Text 64 w/unattend op, split scrn	Dmv	84.95	39 ⁹⁵
AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
MAP-64 MicroAmor Patch/C64 hard/soft	Dmfv	149.95	49 ⁹⁵
MAP-64/2 w/C64 MBA Text/AMTOR Text	Dmc	239.95	89 ⁹⁵

AEA - Continued

AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
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ANTENNAS

IsoPole 144 2m base station antenna		\$ 59.95	49 ⁹⁵
IsoPole 220 220 base station antenna		59.95	49 ⁹⁵
IsoPole 220 Jr. 220 base station ant	Dmf	49.95	29 ⁹⁵
IsoPole 440 440 base station antenna		84.95	64 ⁹⁵
HR-1 2m 1/2 wave telescopic whip w/BNC		24.95	19 ⁹⁵
HR-2 220 1/2 wave telescopic whip w/BNC		24.95	19 ⁹⁵
HR-4 440 1/2 wave flexible whip w/BNC		24.95	19 ⁹⁵

MISCELLANEOUS

PSK-1 4" mobile amplified speaker	D\$	49.95	39 ⁹⁵
AC-1 12vdc 600ma adaptor		19.95	14 ⁹⁵
DDX-64 Doctor DX CW contest simulator ROM; C64		119.95	99 ⁹⁵
DQ-64 Doctor QSO CW trainer/simulator ROM; C64		99.95	79 ⁹⁵
MU-64 Morse University C64 ROM/tune in world			39 ⁹⁵
DX Handy MX-28S 2w PEP 10m SSB/CW handheld		319.95	299 ⁹⁵
RFM-220 30w 220 FM Xcvr/RF modem		799.95	649 ⁹⁵

ARRL

1987 Radio Amateur's Handbook		\$ 18.00	
1988 Handbook (hardcover only; avail. 10/87)		21.00	
Morse University (AEA) Amateur Radio Starter Kit		39.95	
Geographical Index	Dmfcve	25.00	14 ⁹⁵
Computer Networking Conferences 1-4		18.00	
Yagi Antenna Design		15.00	
ARRL Operating Manual		15.00	
Radio Database International		13.00	
Get***Connected to Packet		13.00	
Solid State Design		12.00	
5th Computer Networking Conference		10.00	
Antenna Compendium		10.00	
Satellite Experimenter's Handbook		10.00	
The Complete DX'er		10.00	
Low Band DX'ing		10.00	
Transmission Line Transformers		10.00	
Tune in the World with tape (Novice)		15.00	
Field Resource Directory		10.00	
Oscarlocator		8.50	
Antenna Book (softcover)		8.00	
Code Kit (2 cassette tapes)		8.00	
AX.25 (packet radio)		8.00	
W1FB's Antenna Notebook		8.00	
Tune in the World - book only (Novice)		12.00	
First Steps in Radio		5.00	
Gil Cartoon Book		5.00	
Technician - General Class License Manual		5.00	
Advanced Class License Manual		5.00	
Extra Class License Manual		5.00	
5-7 1/2 wpm code practice cassette		5.00	
10-13 wpm code practice cassette		5.00	
15-20 wpm code practice cassette		5.00	
Morse Code-the Essential Language		5.00	
QRP Notebook		5.00	
FCC Rule Book		5.00	
Grid Locator Atlas		4.00	
50 Years of ARRL		4.00	
200 Meters and Down (early ham radio)		4.00	
Radio Frequency Interference		4.00	
U.S. Call Area Map		3.00	
Log Book		2.50	
1987-88 Repeater Directory		4.00	
World Map		8.00	

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AMATEUR ELECTRONIC SUPPLY®

CODES SHOWN NEXT TO SOME PRICES

(T) Item too large or heavy for UPS, must be shipped via TRUCK. No truck COD's - send advance payment or use a charge card. Freight charges will be collected on delivery.

(A) Item too large or heavy for UPS and value too great for truck, must be shipped via AIR FREIGHT. Sorry no Air Freight COD's. Send payment in advance or use a charge card. Freight charges will be collected on delivery.

(*) CLOSEOUT item which should be available at all stores.

(D) Item DISCONTINUED by manufacturer but still available from our stock when listing published.

(†) A temporary low price due to special purchase, over stock condition or merchandise purchased at the old price, etc. Quantities may be limited at price shown.

(□) Item not discontinued by manufacturer but probably will not be available at AES stores when present stock level is exhausted.

Location codes: (m) Milwaukee; (w) Wickliffe; (f) Orlando; (c) Clearwater; (v) Las Vegas; (e) Chicago.

All prices, specifications, etc. are subject to change without notice. AES is not responsible for typographical errors or omissions in this price list.

USED EQUIPMENT: 10-day Trial (lose only shipping charges) and 30-day Guarantee. Full trade-in toward Higher-Priced NEW gear within 90-days of purchase date.

NEW EQUIPMENT: NO FREE TRIAL - warranted by Manufacturer. Returns may be subject to a restocking and handling charge.

Please use WATS line for placing orders. Use regular numbers for other information. Send all written inquiries to our Milwaukee Headquarters. Branch Stores are not set-up to handle correspondence.

HOURS • Mon. thru Fri. 9-5:30; Sat 9-3

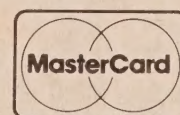
EXPANDED WATS PHONE HOURS

To serve you better, the Milwaukee WATS line 1-800-558-0411, is answered until 8 pm Milwaukee time Monday thru Thursday.

In the evening, let the phone ring for a long time as salespersons maybe tied up on other calls. If no answer, try again.

We have found that our WATS lines are less congested in the afternoon, evenings and towards the end of the week.

Call on Thursday evenings. We can ship your order on Friday and have it in transit over the weekend.



USE
YOUR
CREDIT
CARD



AES® Store Locations

	Local Phone	Nationwide	In-State
m = Milwaukee, WI 53216; 4828 W. Fond du Lac Ave.	(414) 442-4200	1-800-558-0411	1-800-242-5195
w = Wickliffe, OH 44092; 28940 Euclid Ave	(216) 585-7388	1-800-321-3594	1-800-362-0290
f = Orlando, FL 32803; 621 Commonwealth Ave	(305) 894-3238	1-800-327-1917	1-800-432-9424
c = Clearwater, FL 34625; 1898 Drew St	(813) 461-4267		
v = Las Vegas, NV 89106; 1072 N. Rancho Dr	(702) 647-3114	1-800-634-6227	
e = Chicago, IL Erickson Communications (associate)	(312) 631-5181	1-800-621-5802	

ARRL - continued

QST binder - for 8 1/2" x 11" QST	10.00
Radiogram message blanks	pad 1.00
Minilog	1.00

TOMPKINS BOOKS

SOS at Midnight	\$ 5.00
CQ Ghost Ship	5.00
DX Brings Danger	5.00
Death Valley QTH	5.00

RSGB PUBLICATIONS

Amateur Radio Techniques	Dv\$ 12.50
Teleprinter Handbook	D 21.00
Radio Communications Handbook	22.00
VHF-UHF Manual	17.50
Buyer's Guide to Amateur Radio	12.00
HF Antennas	12.00
Test Equipment	11.00
RSGB Operating Manual	10.00
Microwave Newsletter Collection	10.00
Amateur Radio Software Book	15.00
RSGB Data Book	15.00

ALINCO

ELH-230D 2m FM/SSB 3/30w amp/preamp	\$ 99.00	89 ⁹⁵
ELH-230G 2m FM/SSB 3/30w amplifier	82.00	74 ⁹⁵
ELH-260D 2m FM/SSB 3/50w amp/preamp	159.00	129 ⁹⁵
ELH-730D 440 FM/SSB 3/30w amp/preamp	177.00	159 ⁹⁵
ELH-730G 440 FM/SSB 3/30w amplifierDmfv	152.00	129 ⁹⁵
EP-1510 12A power supply, 15A surge	113.00	79 ⁹⁵
ALM-203T 3w 2m FM HT/batt/cgr/TTP	328.00	269 ⁹⁵

Extra Ni-Cd Battery and Speaker Microphone
FREE with purchase of ALM-203T (limited time)

EDC-2 Cigarette lighter plug	9.00	
EDH-25 DC/DC converter (5 watt)	25.00	
EMS-20 Speaker/microphone	32.00	
ESC-3 Carrying case	25.00	
EDC-4 Extra wall charger	10.00	
EBP-5N Extra nicad battery	44.50	
ALR-206T 25w 2m FM Xcvr w/TTP mic	358.00	289 ⁹⁵
ALR-22T 25w 2m FM Xcvr w/TTP mic	388.95	319 ⁹⁵
ALR-22HT 45w 2m FM Xcvr w/TTP mic	429.95	379 ⁹⁵
ALR-72T 25w 440 FM Xcvr w/TTP mic	469.95	399 ⁹⁵
ALD-24T 25w 2m/440 FM Xcvr w/TTP mic	579.95	499 ⁹⁵

ALLIANCE

HD-73 Heavy duty antenna rotor	\$219.95	109 ⁹⁵
U-110 Light duty or elevation rotor	89.95	49 ⁹⁵
TBB Thrust bearing bracket for U-110	14.50	12 ⁹⁵

ALPHA (See ETO)

ALPHA DELTA TRANSI-TRAPS

Extra arc-plug cartridge; HT or HT/N	Dv\$ 17.95	14 ⁹⁵
HV/N 2kw thru 1 GHz type N protector	Df 39.95	29 ⁹⁵
Extra arc-plug cartridge for HV/N	15.95	
R-T 200w 500 MHz lightning protector	29.95	
Extra arc-plug cartridge for R-T	12.95	
RT/N 200w thru 1 GHz type N protector	36.95	
Extra arc-plug cartridge for RT/N	12.95	
HV 2kw 500 MHz lightning protector	32.95	
Extra arc-plug cartridge for HV	15.95	
LT 200w thru 10m 'T' SO-239 protector	19.95	
Extra arc-plug cartridge; LT or LT/N	14.95	
Delta-4 4-pos coax switch/lightning protector	69.95	
Delta-4/N 4-pos type N switch/lightning protector	89.95	
D-4 Extra arc plug for Delta-4/4N switch	9.00	
MACC-8 Console/8-outlet/lightning/spike protectD	79.95	73 ⁹⁵
MACC-4 As above, but w/4 outlets	Dw 59.95	39 ⁹⁵
AC-TT 2-outlet direct wall plug-in protector	29.95	
DX-80 80m 38' dipole antenna	D 69.95	
DX-D 160-80m 66' dipole antenna	D 89.95	
DX-A 160-80-40m twin sloper antenna	49.95	
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	89.95	
DX-DD 80-40m 82' Delta Dipole antenna	69.95	
DX-KT 160m kit for DX-CC/DD (adds 20')	29.95	
DX-SWL AM broadcast-13m 60' SWL sloper ant	69.95	

AMECO PUBLICATIONS

4-01 Code Course Instruction Booklet	\$.75
6-01 Mastering the Morse Code	1.95
12-01 General Class FCC Test Manual	4.95
14-01 Amateur Log Book	D 1.50
16-01 Advanced Class License Guide	1.95
17-01 Extra Class FCC Test Manual	4.95
23-01 Novice Theory Course	5.95

AMECO - continued

26-01 Advanced Class FCC Test Manual	4.95
27-01 Novice Class FCC Test Manual	4.95
102-01 Amateur Radio Theory Course	6.95
EN-1 Novice Class Exam	1.50

CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7 1/2 wpm	\$ 4.95
101-T Senior code tapes, 0-18 wpm	8.95
103-T Advanced code tape, 8-18 wpm	4.95
104-T Extra Class code tape, 20 wpm	4.95
105-OT General Class QSO code course tape	4.95
106-OT Extra Class QSO code course tape	4.95
107-PC Morse Code Course for IBM	19.95
NP-1 Novice Code & Theory Course	9.95

CODE PRACTICE OSCILLATORS & CODE KEYS

OCM-2K Code oscillator & CW monitor kit	\$ 17.50
OCM-2W As above, but wired	22.95
TK-1 Bakelite type key	4.25
TK-4 Brass type key	8.25

PREAMPLIFIERS

TPA Tuneable preamp & indoor active ant	\$ 74.95	69 ⁹⁵
P-9T Power supply for TPA	7.50	
PT-3 2-54 MHz transceiver preamp	109.95	99 ⁹⁵
P-12T Power supply for PT-3	8.95	

MULTIMETER

M-300 20K ohms/volt multimeter	\$ 28.95
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FILTERS

HP-75T 75 ohm high-pass filter	\$ 12.95
HP-300T 300 ohm high-pass filter	12.95

AMERITRON

AL-84 600w PEP out linear (4-6MJ6s)	\$479.00	429 ⁹⁵
AL-80A 1kw PEP out linear (3-500Z)	985.00	829 ⁹⁵
AL-1200 1.5kw PEP out linear (3CX-1200A7)	1825.00	1599
AL-1500 Linear amplifier (8877)	2370.00	2089
ATR-8 300w antenna tuner	Dm	69 ⁹⁵
ATR-8B 300w ant tuner w/balun	Dm 109.50	89 ⁹⁵
ATR-10 1kw antenna tuner	325.00	289 ⁹⁵
ATR-15 1.5kw antenna tuner	380.00	339 ⁹⁵
PIN-5 QSK switch	189.50	169 ⁹⁵
RCS-4 4-pos wireless remote coax switch	134.50	124 ⁹⁵
RCS-8 5-position remote coax switch	Dm 129.50	99 ⁹⁵
RCS-8V 160-2m 5-pos remote coax switch	134.50	124 ⁹⁵

Note: RCS-8V requires 6-wire control cable

AMP SUPPLY

LA-1000A 1000w PEP amp (4-6MJ6s) □mw	\$499.50	449 ⁹⁵
LA-1000NT 1.2kw PEP no tune (Old style)DEMO Dv	679.50	499 ⁹⁵
LK-500ZB 2.5kw PEP amp/CW bkin (3-500Zs) □m	1295.00	1095
LK-500ZB/CW break-in (Old style) □m	1295.00	995 ⁰⁰
LK-500ZB w/o QSK As 500ZB, no break-in □f	1149.00	995 ⁰⁰
LK-500NT-B 2.5kw PEP no tune/CW break-in Dwf	1595.00	1295
LK-500NT-B (Old style) □m	1595.00	1195
LK-800A 3kw PEP amp (3-3CX800A7s)□mf	2850.00	2450
LK-800A (Old style) □m	2850.00	2250
LK-800NT As LK-800A, no tune (Old style)□f	3195.00	2495
AT-1200 1200w PEP tuner (Old style) □mfce	229.50	189 ⁹⁵
BL-1500 9:1 5kw balun for 450 ohm cable □mf	39.50	29 ⁹⁵
AT-3000 3kw PEP tuner/dual meters/switch □mw	499.50	399 ⁹⁵
A-132-S 150 ohm shielded balanced feedline		
A-132-S 100 ft., Dmwf	24.00	12 ⁹⁵
A-132-S 500 ft., Dm	120.00	69 ⁹⁵
DL-1500 1.5kw dry dummy load	Dme	49 ⁹⁵
All Band Doublet 160-10m ant (needs tuner) □mw	39.50	29 ⁹⁵
Loop Skywalker 80-10m loop ant, 68' on a side □mw	49.50	39 ⁹⁵

Amp Supply products are Factory Warranty ONLY

ANTENNA SPECIALISTS

VHF/UHF ANTENNAS

Avanti AP151.3G 2m 3 db on glass antenna	\$ 44.50	39 ⁹⁵
Avanti AP220.3G 220 3 db on glass antenna	44.50	39 ⁹⁵
Avanti AP450.3G 440 3 db on glass antenna	44.75	39 ⁹⁵
Avanti APR450.5G 440 5 db on glass ant	49.25	44 ⁹⁵
KAV-382 On glass replacement mtg kit	7.75	
ASP-157 136-512 MHz 1/4 wv gutter mt ant	25.75	
ASPC201L 108-512 MHz 1/4 wv 3/8" hole ant	20.75	
ASPS748 Disguise cowl mt 2m ant, 2.5 db	77.50	69 ⁹⁵
ASPR/S798 As above, for Ford/Mercury mt □w	80.50	59 ⁹⁵
ASPS619 AM/FM coupler for disguise ant	27.25	

HOLE PLUGS

ASC-34 For 1-5/16" hole	\$ 2.95
ASC-35 For 3/4" hole	1.95
ASC-37 For 3/8" hole	1.95
ASC-39 For 7/8" hole	1.95

ANTENNA SUPERMARKET

Eavesdropper 60-11m trap dipole SWL ant	\$ 64.50	59 ⁹⁵
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APPLE COMPUTERS

Chicago Area Hams! Be sure to visit Erickson Communications for Apple Computers & accessories. Sorry, Erickson is not able to sell Apple Computers via mail order. However, non-Apple computer products may be purchased via mail order from Erickson.

ASTATIC

10DA-L Dynamic mic head (no stand or cable)	\$ 71.50	64 ⁹⁵
D-104-L Crystal mic head (no stand or cable)	32.50	
T-UG9 Amplified desk stand	40.00	
T-UG Amplified mic, 6-wire w/stand	80.25	69 ⁹⁵
MC-320 Crystal mic cartridge for D-104	14.50	
MC-321 Ceramic mic cartridge for D-104C	14.50	

ASTRON

RS-7A 5A power supply, 7A surge	\$ 64.95	49 ⁹⁵
RS-10A 7.5A power supply, 10A surge	79.95	62 ⁹⁵
RS-12A 9A power supply, 12A surge	89.95	69 ⁹⁵
RS-20A 16A power supply, 20A surge	115.95	89 ⁹⁵
RS-35A 25A power supply, 35A surge	174.95	134 ⁹⁵
RS-50A 37A power supply, 50A surge	253.95	199 ⁹⁵
RS-20M 16A ps w/meter, 20A surge	137.95	109 ⁹⁵
RS-35M 25A ps w/meter, 35A surge	194.95	149 ⁹⁵
RS-50M 37A ps w/meter, 50A surge	288.95	229 ⁹⁵
VS-20M Variable 16A ps/meters, 20A surge	162.95	129 ⁹⁵
VS-35M Variable 25A ps/meters, 35A surge	222.95	169 ⁹⁵
VS-50M Variable 37A ps/meters, 50A surge	314.95	249 ⁹⁵
RM-35M 25A rack mt ps/meters, 35A surge	289.95	239 ⁹⁵
RM-50M 37A rack mt ps/meters, 50A surge	329.95	269 ⁹⁵

AVANTI (See Antenna Specialists)

B & K

AUDIO TEST INSTRUMENTS

1035 Wow and flutter meter	\$758.00	644 ⁹⁵
2009 MTS TV-stereo generator	495.00	419 ⁹⁵

CAPACITANCE METERS

810 200 pF to 20 mF capacitance meter	\$125.00	104 ⁹⁵
820 .1pF to 1F capacitance meter	226.00	189 ⁹⁵
830 200 pF-200mF autoranging meter	275.00	232 ⁹⁵
860 Cable length checker/fault locator	550.00	466 ⁹⁵
875 Digital LCR meter	159.00	134 ⁹⁵

COUNTERS

1803 100 MHz frequency counter	\$186.00	157 ⁹⁵
1805 80 MHz multi-function counter	321.00	269 ⁹⁵
1822 150 MHz universal counter/timer	502.00	424 ⁹⁵
1851 520 MHz multi-function counter	641.00	544 ⁹⁵
1855 1.2 GHz frequency counter	836.00	709 ⁹⁵

CRT RESTORER/ANALYZERS

467 CRT "TriDynamic" restorer/analyzer	\$610.00	518 ⁹⁵
470 CRT restorer/analyzer	440.00	374 ⁹⁵

DIGITAL PRODUCTS

DP-21 Digital logic probe	\$ 32.00	26 ⁹⁵
DP-31 Digital pulser probe	33.00	27 ⁹⁵
DP-51 Digital probe	79.00	66 ⁹⁵
DP-100 Digital pulsing probe	Dm	49 ⁹⁵
DP-101 Digital pulsing probe	109.00	89 ⁹⁵

GENERATORS

3010 .1 Hz to 1 MHz generator	\$219.00	186 ⁹⁵
3011 2 MHz function generator w/dig disp	219.00	186 ⁹⁵
3017 2 MHz sweep/function generator	319.00	269 ⁹⁵
3020 .02 Hz-2 MHz sweep/function gen	461.00	389 ⁹⁵
3020AM 2 MHz sweep/function gen w/AM	461.00	389 ⁹⁵
3025 .005 Hz-5 MHz sweep/function gen	549.00	466 ⁹⁵
3030 .001 Hz-5 MHz sweep/function gen	780.00	659 ⁹⁵
3300 5 MHz pulse generator	445.00	378 ⁹⁵

HIGH VOLTAGE PROBE

HV-44 Direct-reading 40kV DC probe	\$ 83.00	69 ⁹⁵
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ISOLATION TRANSFORMER

TR-110 Isolation transformer	\$136.00	114 ⁹⁵
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MULTIMETERS (ANALOG)

111 22-range compact VOM	Dm\$ 47.00	36 ⁹⁵
112 20,000 ohms/volt analog multimeter	28.00	23 ⁹⁵
113 30,000 ohms/volt analog multimeter	35.00	29 ⁹⁵
116 23-range compact VOM	Dm 79.00	49 ⁹⁵
117 Pocket size analog multitester	11.00	
177 29-range 7" VTVM	265.00	224 ⁹⁵
213 FET multimeter	47.00	39 ⁹⁵
277 66-range electronic multimeter	Dm 245.00	169 ⁹⁵
290 75-range electronic multimeter	350.00	296 ⁹⁵

MULTIMETERS (DIGITAL)

340 300A multi-function clamp-meter	\$ 72.00	59 ⁹⁵
350 1000A multi-function clamp-meter	98.00	82 ⁹⁵
2802 3 1/2-digit probe type multimeter	60.00	49 ⁹⁵
2804 3 1/2-digit hand-held multimeter	63.00	52 ⁹⁵
2806 Manual/autoranging hand-held	Dm 79.00	64 ⁹⁵

B&K - continued

	Reg	Sale
2807 Manual/autoranging hand-held	121.00	99 ⁹⁵
2816 Manual/autoranging hand-held	158.00	129 ⁹⁵
2817 3½-digit peak hold hand-held	184.00	149 ⁹⁵
2818 3½-digit true RMS hand-held	226.00	189 ⁹⁵
2820 4½-digit true RMS DMM	357.00	299 ⁹⁵
2830 3½-dig 0.5% lab multimeter	233.00	196 ⁹⁵
2831 3½-dig 0.1% lab multimeter	282.00	239 ⁹⁵
2832 3½-dig 0.5% lab multimeter	175.00	148 ⁹⁵
2833 4½-dig 0.05% true RMS multimeter	330.00	279 ⁹⁵
2834 4½-dig 0.04% true RMS multimeter	519.00	439 ⁹⁵
CP-1 AC current clamp-on probe	65.00	54 ⁹⁵

OSCILLOSCOPES

1400 Oscilloscope calibrator	\$499.00	419 ⁹⁵
1405 3" scope w/test leads	Dm 336.00	249 ⁹⁵
1420 Rectangular, D-T, DC-15 MHz, port	875.00	739 ⁹⁵
1522P Rec, D-T, DC-20 MHz	Dm 695.00	469 ⁹⁵
1524 20 MHz dual trace oscilloscope	828.00	699 ⁹⁵
1541A 40 MHz dual trace oscilloscope	845.00	718 ⁹⁵
1564 60 MHz dual trace oscilloscope	1370.00	1159
1570AP Rec, Q-T, DC-60 MHz del sweep	1464.00	1239
1590AP Rec, Q-T, DC-100 MHz delayed sweep	1886.00	1599
2120 20 MHz dual trace oscilloscope	470.00	399 ⁹⁵
2125 20 MHz dual time base oscilloscope	570.00	479 ⁹⁵
2501 Digital storage adapter	795.00	674 ⁹⁵
2520 Digital storage oscilloscope	1990.00	1689
2521 Deluxe dig storage oscilloscope	3050.00	2589
2502 Waveform processor option for 2521	740.00	629 ⁹⁵

POWER SUPPLIES

1601 0-50V power supply	\$440.00	374 ⁹⁵
1604 Portable isolated AC supply	73.00	62 ⁹⁵
1610 0-30V, 0-1A power supply	150.00	126 ⁹⁵
1625 5VDC, 10A power supply	150.00	126 ⁹⁵
1630 0-30V, 0-3A power supply	225.00	189 ⁹⁵
1635 0-30V, 0-3A digital ps	280.00	236 ⁹⁵
1645 9-16V, 0-10A power supply	175.00	148 ⁹⁵
1650 Tri-output power supply	455.00	384 ⁹⁵
1653 0-150V, 2A isolated AC ps	190.00	159 ⁹⁵
1655 0-150V, 3A isolated AC ps/leak tester	405.00	344 ⁹⁵
1660 (2) 0-30V, 2A; (1) 4-6.5V, 5A ps	530.00	449 ⁹⁵

SEMICONDUCTOR TESTERS

510 Portable transistor tester	\$172.00	146 ⁹⁵
520B Industrial transistor tester	305.00	259 ⁹⁵
530 Lab quality semiconductor tester	550.00	466 ⁹⁵
540 Component tester	995.00	839 ⁹⁵
550 TTL IC comparator tester/logic monitor	395.00	329 ⁹⁵
552 CMOS IC comparator tester/logic monitor	395.00	329 ⁹⁵
560 Programmable IC tester	3500.00	2969

SIGNAL LEVEL METERS

425 VHF/CATV, 50-450 MHz w/nicad	\$640.00	539 ⁹⁵
430 VHF/CATV/UHF, 50-450/470-810 w/nicad	985.00	829 ⁹⁵

TELEPHONE TEST INSTRUMENTS

1042 Telephone line analyzer	\$ 20.00	16 ⁹⁵
1045 Telephone product tester	457.00	388 ⁹⁵
1050 Telephone product analyzer	1958.00	1659

VIDEO TEST INSTRUMENTS

1211A Portable color generator	\$204.00	172 ⁹⁵
1249 NTSC generator w/RGB	475.00	399 ⁹⁵
1251 NTSC signal generator	1150.00	969 ⁹⁵
1260 Deluxe NTSC signal generator	1850.00	1569

ACCESSORIES

PR-21 Test probe assembly	\$ 26.00	
MS-28 Metal stand for 280/2800/2810Dm	5.00	1 ⁹⁵

Note: Other accessories in stock or available on special order. B & K line stocked only at Milwaukee. Call Ron Glisch at Milwaukee headquarters for your B & K needs.

B & W COAX SWITCHES

CSA-6G/375 6-position, rear connectors	\$ 28.25	
CSR-5G/376 5-position, side connectors	28.25	
CS-3G/593 3-position, for desk/wall mtg	29.25	
CS-2-2/594 2-pole, 2-pos, for desk/wall mtg	35.75	
CS-6G/595 6-position, for desk/wall mtg	33.75	
Note: Above switches provide grounding of unused terminals, and are supplied with face plates & knobs.		
550A 5-position, side connectors*	Dwe 33.50	22 ⁹⁵
550A-2 2-position, side connectors*	Dmw 27.00	16 ⁹⁵
551A 2-pole, 2-position, side connectors*	Dwfc 37.25	26 ⁹⁵
590 5-position, rear connectors*	Dmf 34.50	22 ⁹⁵
DP-5 Dial plate for 550A, 590	Dmf 2.00	
*Note: Above switches are supplied "plain" (no dial plate or knob).		
CR-115/377 Coax ant relay - 48 to 130vac	32.50	

B&W - continued

LOW-PASS FILTERS

FL-10/100//424 1.5-30 MHz/100w/52 ohms	\$ 23.50	
FL-10/1500//425 1.5-30 MHz/1kw/52 ohms	32.00	
FL-10/1500/70//426 1.5-30/1kw/72 ohms	34.50	
FL-6/100//423 6 meters, 100w, 52 ohms	27.00	
FL-6/1500//427 6 meters, 1000w, 52 ohms	38.00	

DUMMY LOADS/WATTMETERS

334A 1000w dummy load/wattmeter w/type N	\$214.50	194 ⁹⁵
374 1500w dummy load/wattmeter w/SO-239De	235.00	209 ⁹⁵
374 1500w dummy load/wattmeter w/type N	258.50	229 ⁹⁵
384 1500w dummy load only w/type N	109.45	99 ⁹⁵

ANTENNAS

AP-10/370-10 57" port 40/20/15/10/6/2m ant	\$ 55.25	49 ⁹⁵
AT-55/370-13 40/20/15/10m 55' trap ant	68.00	62 ⁹⁵
AT-55K/370-14 As above, but kit	59.00	54 ⁹⁵
AT-110/370-11 80/40/20/15/10m 110' trap ant	76.50	69 ⁹⁵
AT-110K/370-12 As above, but kit	65.00	59 ⁹⁵
AS-160 160/80/40/20m 137' trap dipole	129.00	119 ⁹⁵
AS-80 80/40/20m 78' trap dipole	99.00	94 ⁹⁵
AS-40 40/20/15/10m 40' trap dipole	129.00	119 ⁹⁵
AS-20 20/15/10m 23' trap dipole	99.00	94 ⁹⁵
AXS-160/AES-160 160/30m 96' trap dipole	99.00	94 ⁹⁵
AXS-80/AES-80 80/40/15m 64' trap dipole	99.00	94 ⁹⁵
AC-3.5-30/370-15 80-10m 8-band 90' dipole	167.50	149 ⁹⁵
AC-1.8-30 Continuous 1.8-30 MHz antenna	159.50	144 ⁹⁵
AV-25 80/40/30/20/15/10m vert, 25' high	109.50	99 ⁹⁵
AR-25 Radial kit for AV-25	23.80	
ASW-5/SWP 75" port 49-11m SWL antenna	42.50	
AT-200 2m ant matcher for reg car ant	33.00	
VS-300A 300w 160-10m antenna tuner	99.95	89 ⁹⁵

BELDEN

52 OHM COAXIAL CABLE

9201 RG-58 (solid center)	per ft.	16 ⁹⁵
9201	100 ft. Roll	14.25
9201	500 ft. Roll	52.30
9201	1,000 ft. Roll	104.55
8240 RG-58U (solid center)	per ft.	21 ⁹⁵
8240	100 ft. Roll	24.60
8240	500 ft. Roll	84.40
8240	1,000 ft. Roll	139.05
8259 RG-58AU (stranded center)	per ft.	24 ⁹⁵
8259	100 ft. Roll	27.95
8259	500 ft. Roll	93.95
8259	1,000 ft. Roll	154.80
8219 RG-58AU (stranded, foam)	per ft.	25 ⁹⁵
8219	100 ft. Roll	29.50
8219	500 ft. Roll	107.30
8219	1,000 ft. Roll	176.85
8262 RG-58C (non-contaminating)	per ft.	26 ⁹⁵
8262	100 ft. cut	22 ⁹⁵
8262	500 ft. Roll	111.30
8262	1,000 ft. Roll	183.45
9258 RG-8X (stranded, foam)	per ft.	30 ⁹⁵
9258	100 ft. Roll	41.50
9258	500 ft. Roll	125.00
9258	1,000 ft. Roll	210.90
8237 RG-8U	per ft.	56 ⁹⁵
8237	100 ft. Roll	65.25
8237	400 ft. Roll	165.85
8237	500 ft. Roll	207.25
8214 RG-8U (foam)	per ft.	45 ⁹⁵
8214	100 ft. Roll	64.45
8214	125 ft. cut	49 ⁹⁵
8214	500 ft. Roll	240.25
8214	(Truck) 1,000 ft. Roll	480.45
9913 RG-8U (low loss)	100 ft. Roll	76.65
9913	250 ft. Roll	136.00
9913	500 ft. Roll	271.95
9913 (old style) (Truck) 1,000 ft. Roll	□	543.90
9251 RG-8A (non-contaminating)	per ft.	79 ⁹⁵
9251	100 ft. Roll	97.55
9251	500 ft. Roll	303.10
8267 RG-213 (non-contaminating)	per ft.	78 ⁹⁵
8267	100 ft. cut	69 ⁹⁵
8267	500 ft. Roll	294.85

72 OHM COAXIAL CABLE

8241 RG-59U (solid, 72 ohm)	per ft.	25 ⁹⁵
8241	100 ft. Roll	29.50
8241	500 ft. Roll	90.55
8241	1,000 ft. Roll	149.25

BELDEN - continued

	Reg	Sale
8238 RG-11 (stranded)	per ft.	59 ⁹⁵
8238	100 ft. Roll	72.35
8238	500 ft. Roll	227.70
8213 RG-11 (solid, foam)	per ft.	50 ⁹⁵
8213	100 ft. cut	46 ⁹⁵
8213	500 ft. Roll	191.95
ROTOR CABLE		
8484 4-wire; AR-22XL/U-110	per ft.	22 ⁹⁵
8484	100 ft. Roll	25.25
8484	500 ft. Roll	97.05
8484	1,000 ft. Roll	159.90
8485 5-wire; AR-40/BT-1A	per ft.	26 ⁹⁵
8485	100 ft. Roll	30.95
8485	500 ft. Roll	120.50
8485	1,000 ft. Roll	198.60
8448 8-wire; HD-73/CD-45/HAM-IV	per ft.	40 ⁹⁵
8448	100 ft. Roll	53.55
8448	500 ft. Roll	175.65
8448	1,000 ft. Roll	351.30
9405 8-wire; HAM-IV/T²X/HDR-300	per ft.	54 ⁹⁵
9405	100 ft. cut	48 ⁹⁵
9405	500 ft. Roll	301.05
9405	(Truck) 1,000 ft. Roll	602.10
ANTENNA WIRE		
8000 No. 14 stranded ant wire	per ft.	15 ⁹⁵
8000	100 ft. Roll	16.30
8000	1,000 ft. Roll	125.00
8008 No. 12 solid ant wire	100 ft. Roll, Dw	9 ⁹⁵
8008	500 ft. Roll, Dw	39 ⁹⁵
8009 No. 14 solid ant wire	100 ft. Roll, Dw	8 ⁹⁵
8009	500 ft. Roll, Dw	34 ⁹⁵
No. 8 ALUMINUM GROUND WIRE		
8018 Multiples of 50 ft.	each \$	7.30
8018	500 ft. Roll	58.80

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price only.

COILED MICROPHONE CABLE

8497 1 shielded, 2 unshielded (rubber)	\$ 8.80	6 ⁹⁵
Foam Coax w/PL-259s on both ends		
9349 3' RG-58AU foam	\$ 10.80	8 ⁹⁵
9350 15' RG-58AU foam	12.10	9 ⁹⁵
9347 20' RG-58AU foam, 1 PL-259	10.90	8 ⁹⁵
9351 25' RG-58AU foam	Df 9.60	6 ⁹⁵
9352 50' RG-58AU foam	18.10	14 ⁹⁵
9354 50' RG-8U foam	33.85	26 ⁹⁵
9355 75' RG-8U foam	46.65	36 ⁹⁵
9356 100' RG-8U foam	57.70	44 ⁹⁵

Also see JSC for cable

BENCHER

BY-1 Iambic keyer paddle w/black base	\$ 61.95	54 ⁹⁵
BY-2 Iambic keyer paddle w/chrome base	74.95	66 ⁹⁵
BY-3 Iambic keyer paddle, gold plated	180.00	159 ⁹⁵
ST-1 Single lever keyer paddle, black base	61.95	54 ⁹⁵
ST-2 Single lever keyer paddle, chrome base	74.95	66 ⁹⁵
ST-3 Single lever keyer paddle, gold plated	180.00	159 ⁹⁵
ZA-1A 3.5-30 MHz 1:1 balun	34.95	29 ⁹⁵
HWK Balun hardware kit for 2" boom	6.95	
YA-1 1kw low pass filter	39.95	
AP-1 12v ps for XZ-2 audio filter	Dmwfv 9.95	4 ⁹⁵



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BIRD	Reg	Sale
43 ThruLine Directional wattmeter, SO-239s	\$179.00	
4431 Wattmeter, variable RF tap, SO-239s	315.00	
Elements (Table 1) 50H-1000H	each	62.00
Elements (Table 1) 2500H, 5000H	each	89.00
Elements (Table 1) 25-1000 MHz	each	50.00
Low-power elements (Table 2)	each	67.00
CC-1 Carrying case		32.00
EC-1 Element case		23.00

TABLE 1 Standard Elements

Power Range	Frequency Bands (MHz)					
	2 - 30	25 - 60	50 - 125	100 - 250	200 - 500	400 - 1000
5 watts	—	5A	5B	5C	5D	5E
10 watts	—	10A	10B	10C	10D	10E
25 watts	—	25A	25B	25C	25D	25E
50 watts	50H	50A	50B	50C	50D	50E
100 watts	100H	100A	100B	100C	100D	100E
250 watts	250H	250A	250B	250C	250D	250E
500 watts	500H	500A	500B	500C	500D	500E
1000 watts	1000H	1000A	1000B	1000C	1000D	1000E
2500 watts	2500H					
5000 watts	5000H					

TABLE 2 Low-Power Elements

1 watt	Cat. No.	2.5 watts	Cat. No.
60-80 MHz	060-1	60-80 MHz	060-2
80-95 MHz	080-1	80-95 MHz	080-2
95-125 MHz	095-1	95-150 MHz	095-2
110-160 MHz	110-1	150-250 MHz	150-2
150-250 MHz	150-1	200-300 MHz	200-2
200-300 MHz	200-1	250-450 MHz	250-2
275-450 MHz	275-1	400-850 MHz	400-2
425-850 MHz	425-1	800-950 MHz	800-2
800-950 MHz	800-1		

80F 5w dummy load w/type N female	55.00	
80M 5w dummy load w/type N male	55.00	
8080 25w dummy load w/type N male QC	79.00	
8085 50w dummy load w/type N male QC	110.00	
4114 50w Minimonitor	Dm 235.00	149 ⁹⁵
4273 1.5-35 MHz variable RF sig sampler*	89.00	
4273-100 For Bird equipment installation	100.00	
4275 20-1000 MHz variable RF sampler*	89.00	
4275-100 For Bird equipment installation	100.00	
4304 25-1000 MHz 500w wattmeter/sampler	395.00	
*2 QC connectors required - not included.		

Quick Change Connectors (QC)

4240-050 UHF female (SO-239)	each \$ 7.00
4240-179 UHF male (PL-259)	each 22.00
4240-062 Type N female	each 7.00
4240-063 Type N male	each 13.00
4240-125 BNC female	each 13.00
4240-132 BNC male	each 38.00
4100-014 Type N female SQC (small); 4114/4304	11.00
4100-017 UHF female (SO-239) SQC; 4114/4304	13.00

BUTTERNUT

HF-6V 80/40/30/20/15/10m 26' vert ant	\$175.00	129 ⁹⁵
TBR-160S 160m resonator	63.00	57 ⁹⁵
A18-24 17 & 12m kit for HF-6V	36.00	32 ⁹⁵
RMK-II Roof mounting kit w/radials	59.95	54 ⁹⁵
STR-II Radial kit only	39.00	36 ⁹⁵
HF-2V 80/40m 32' vertical	164.00	124 ⁹⁵
20-MRK 20m add-on kit for HF-2V	39.00	36 ⁹⁵
30-MRK 30m resonator for HF-2V	39.00	36 ⁹⁵
TBR-160S 160m resonator	63.00	57 ⁹⁵
HF-4B 2 el butterfly beam for 20/15/12/10mD	272.50	199 ⁹⁵
HF-5B 2 el butterfly beam for 20/15/12/10m	272.50	199 ⁹⁵
10-11 2 el butterfly beam for 10 & 11m	119.95	106 ⁹⁵
30-MCK 30m resonator; HF5V-II/III Dmwve	33.50	9 ⁹⁵
2MCV 2m 3/2 wave 3 db vertical ant	62.50	49 ⁹⁵
2MCV-5 2m 5/2 wave 5 db vertical ant	74.50	59 ⁹⁵

CES

217B Thin TTP, slender remote board	\$ 60.42	49 ⁹⁵
217C Thin pad, self-contained electronics	52.50	46 ⁹⁵
325 Portable memory dialer	Dmf 129.95	79 ⁹⁵
330/340 Portable acoustic tone dialer	□m 51.78	29 ⁹⁵
635 10-memory lo-Z microdialer	□m 160.42	89 ⁹⁵
510-SA "Smart Patch" simplex autopatch	450.00	319 ⁹⁵
510-SA-II Deluxe simplex/duplex autopatch	583.00	419 ⁹⁵
RM-10 Repeater Maker	200.00	159 ⁹⁵

CTS COMPUTERMATE II WORKCENTERS

L0139 48" wide, 2 shelves, walnut	Dm \$209.00	149 ⁹⁵
L0140 36" wide, 2 shelves, walnut	Dm 209.00	149 ⁹⁵
L0146 36" wide, 3 shelves, walnut	Dm 209.00	149 ⁹⁵
L0247 48" wide, 3 shelves, oak & white Dm	209.00	149 ⁹⁵

CENTURION

M-146-BN 2m 3" mini-duck w/BNC	\$ 10.85	9 ⁹⁵
M-146-HT 2m 3" mini-duck w/threads	8.15	7 ⁹⁵

CLEAR CHANNEL

AR-3300 30w 10m FM/SSB Xcvr	D
AR-3300/high power 100w 10m FM/SSB XcvrD	
AR-3500 30w 10m FM/SSB Xcvr	
AR-3500/high power 100w 10m FM/SSB Xcvr	

CLOCKS

BMI 973A 12" 24-hour wall clock	\$ 59.95	44 ⁹⁵
Icom GC-4 World clock	Dw 99.95	59 ⁹⁵
Icom GC-5 World clock	91.95	89 ⁹⁵
MFJ-107 24-hour digital clock	9.95	
MFJ-108 24/12-hr digital clock	19.95	
World Clock M-8201(G) 12/24-hr gold world clock	34.95	
World Clock M-3111A(G) 12/24-hr smoke/gold	36.95	
World Clock M-3111A(S) 12/24-hr smoke/silver	36.95	
World Clock M-3202W(G) 12/24-hr wood/gold	59.95	
World Clock M-3104L 12/24-hr lucite clock	69.95	

COAX SEAL

104 1/2" x 60" coax seal	\$ 2.49
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COLLINS

AC-2808 Blower kit	Dm \$396.00	249 ⁹⁵
AC-2828 Microphone foot switch	Dv 60.00	39 ⁹⁵
AC-3810 360 Hz CW filter	Dmv 180.00	149 ⁹⁵
AC-3813 6 KHz AM filter	Dmv 168.00	89 ⁹⁵
MM-280 Handheld microphone	Dmwv 64.00	49 ⁹⁵
MM-281 Noise canx handheld mic	Dmw 92.00	49 ⁹⁵

Communications Specialists

SS-32PA Programmable CTCSS encoder	\$ 29.95
SS-32HB Hybrid micro-sized encoder	29.95
SS-32M Micro-thin CTCSS encoder; Icom HTs	29.95
TE-64 64-tone CTCSS/burst switch encoder	79.95
TS-32 32-tone CTCSS prog encoder/decoder	59.95
DTD-1 DTMF decoder	59.95

CONNECTORS

AMPHENOL COAX CONNECTORS

83-1SP-1050 Male coax plug (PL-259)	\$ 1.26	99 ^c
83-1SP Silver plated coax plug (PL-259)	1.86	
(Gold Line) silver plated teflon PL-259	2.99	
83-185 Reducer for RG-58 (UG-175)	.40	
83-168 Reducer; RG-59/RG-8X (UG-176)	.42	
83-1J Double female adaptor (PL-258)	2.11	
83-1R Female chassis mt socket (SO-239)	1.26	
83-1H Hood for in-line use (UG-106)	2.06	
83-1T T-connector adaptor (M-358)	5.06	
83-1AP Right angle adaptor (UG-646)	3.64	
83-877 Double male adaptor	5.35	
83-878 Single hole (5/8") chassis mt socket	1.60	
83-5SP Push-on PL-259	8.03	
31-002 BNC male connector for RG-58	2.13	
31-012 BNC male connector; RG-59/RG-8X	2.33	
82-61 Type N male connector for RG-8	4.71	
82-202-1006 Type N male for Belden 9913	4.19	
82-209 Type N female in-line for RG-8	4.31	
82-24 Type N female chassis mt socket	3.62	
34025 Type N male connector for RG-58	3.75	
82-64 Type N right angle adaptor	11.90	

COAX ADAPTORS

2900 SO-239 to BNC male adaptor	\$ 4.97
4400 SO-239 to type N male adaptor	8.01
34125 Type N female to UHF male adaptor	14.34
8010 Type N double female adaptor	6.60
45250 Type N double male adaptor	6.83
83-10 SO-239 to Motorola/phono plug	4.66
1033-49 SO-239 to QD PL-259	2.15
1013-21SP SO-239 to male F connector	3.75
MP-5 Motorola antenna plug	1.21
P-12V Cig lighter plug w/leads	1.44

MICROPHONE CONNECTORS

80-75-MC1F 1-conductor mic plug	\$ 13.44
80-MC2M 2-pin male mic plug	4.61
91-MC4M 4-pin male mic plug	5.43
09CL4M 4-pin male twist lock mic plug	5.67
12CL5M 5-pin male twist lock mic plug	6.17
480 .206" 3 cond mic plug (PJ-068/Collins)	11.10
S260 .206" 3 cond mic plug (Drake)	5.55
S230 As above, but right angle plug	5.70
CBC-3 3-pin female mic plug - Japan	2.54
CBC-4 4-pin female mic plug - Japan	2.34
CBC-4P Panel mt 4-pin male	2.05
CBC-5 5-pin female mic plug - Japan	2.99
CBC-6 6-pin female mic plug - Japan	3.69
CBC-7 7-pin female mic plug - Japan	3.99
CBC-8 8-pin female mic plug - Japan	3.99

Reg	Sale	Reg	Sale
299 ⁹⁵			
399 ⁹⁵			

CONNECTORS - continued

P-7D 7-pin DIN plug	2.00
P-8D 8-pin DIN plug	2.00
Standard 1/4" Plugs w/Solder Terminals	
267 3 conductor, plastic handle	\$ 3.70
237 As above, but right angle plug	4.30
260 3 conductor w/screw terminals	4.20
297 3 conductor, metal handle	4.45
250 2 conductor, plastic handle	2.50
280 2 conductor, metal handle	3.35

PHONO-TYPE CONNECTORS

3501MC Phono plug with cable clamps	\$.77
3502 Shielded phono plug	1.45
3507 RF-type phono plug	2.10

MINI PHONE PLUGS

P-25 2.5mm sub-miniature phone plug	\$.39
P-35 3.5mm miniature phone plug	.45

CONNECT SYSTEMS

Private Patch III Deluxe simplex autopatchD	\$659.00	399 ⁹⁵
Private Patch IV Deluxe simplex autopatch		489 ⁹⁵
CS-16 DTMF decoder/controller	164.00	

CROWN METAL

SOLID BARE COPPERWELD ANTENNA WIRE

AN-122 100 feet No.12	\$ 13.95	
AN-123 150 feet No.12	19.95	
AN-124 250 feet No.12	31.95	
AN-126 500 feet No.12	57.95	
AN-128 1,000 feet No.12	112.95	99 ⁹⁵
AN-142 100 feet No.14	11.95	
AN-143 150 feet No.14	16.95	
AN-144 250 feet No.14	24.95	
AN-146 500 feet No.14	40.95	
AN-148 1,000 feet No.14	72.95	69 ⁹⁵
AN-181 250 feet No.18	9.95	
AN-182 500 feet No.18	15.95	

CUSHCRAFT Factory Warranty

VHF/UHF FM BEAMS (Vertical polarization)		
A147-4 2m, 4 el, 3 1/2' boom, 10 db	\$ 40.00	34 ⁹⁵
A147-11 2m, 11 el, 12' boom, 13 db	70.00	54 ⁹⁵
A147-20T 2m FM/SSB Twist, 12 db	85.00	68 ⁹⁵
A147-22 2 A147-11s vert. stacked, 16 db	190.00	144 ⁹⁵
A220-7 220 MHz, 7 el, 5 1/2' boom, 11 db	45.00	39 ⁹⁵
A220-11 220 MHz, 11 el, 8' boom, 13 db	68.00	52 ⁹⁵
A449-6 440 MHz, 6 el, 3' boom, 10 db	42.00	36 ⁹⁵
A449-11 440 MHz, 11 el, 5' boom, 13 db	58.00	46 ⁹⁵

VERTICAL STACKING KITS* (Adds 3 db)

A14-VPK Stacking kit for 2 A147-4s	\$ 48.00
A14-SK Harness only for 2 A147-4s	35.00
A147-VPK Stacking kit for 2 A147-11s	75.00
A147-SK Harness only for 2 A147-11s	35.00
A220-VPK Stacking kit for 2 A220-11s	48.00
A21-SK Harness only for 2 A220-11s	35.00
A449-VPK Stacking kit for 2 A449-11s	48.00
A449-SK Harness for 2 A449-6/11s	35.00

*Prices are for stacking kits only.

FM RINGOS - 1/2 Wave Verticals - 3.75 db

AR-10 10m FM Ringo, 1000w	\$ 53.00	46 ⁹⁵
AR-6 6m FM, 1000w	53.00	46 ⁹⁵
AR-2 2m FM, 1000w	35.00	32 ⁹⁵
AR-220 220 MHz FM, 500w	32.00	29 ⁹⁵
AR-450 440 MHz FM, 500w	32.00	29 ⁹⁵

RINGO RANGERS - FM Verticals - 6 db

ARX-2 2m FM Ringo Ranger	\$ 44.00	36 ⁹⁵
ARX-2B 2m FM Ringo Ranger II, 1000w	52.00	39 ⁹⁵
ARX-220B 220 FM Ringo Ranger II, 500w	52.00	39 ⁹⁵
ARX-450B 440 FM Ringo Ranger II, 500w	52.00	39 ⁹⁵
ARX-450BN 440 FM Ringo Ranger II w/type N	60.00	49 ⁹⁵
ARX-2K Converts AR-2 to ARX-2	Df 22.95	9 ⁹⁵
ARB-220K Converts ARX-220 to ARX-220B Dwf	21.95	9 ⁹⁵
ARB-450K Converts ARX-450 to ARX-450B Dmw	21.95	9 ⁹⁵

FM 4-POLES (less vertical support mast)

AFM-4DA 2m FM, 23' high, 6/9 db	\$105.00	86 ⁹⁵
AFM-24DA 220 MHz FM, 15' high, 6/9 db	95.00	79 ⁹⁵
AFM-44DA 440 MHz FM, 8' high, 6/9 db	85.00	72 ⁹⁵

TWIST, OSCAR BEAMS (Horiz./Vert. Polarization)

A144-10T 2m, 10 el, 5' boom, 10 db	\$ 75.00	59 ⁹⁵
A144-20T 2m, 20 el, 10' boom, 12 db	110.00	79 ⁹⁵
A147-20T 2m FM/SSB, 10' boom, 12 db	85.00	68 ⁹⁵
A16TB 432 twist Boomer, 16el, 6' boom, 12db	85.00	64 ⁹⁵
A432-20T 432, 20 el, 4' boom, 12 db	Dm 64.95	29 ⁹⁵
PS-4 Remote polarity switch, needs 12v	95.00	79 ⁹⁵
A14T-MB Twist mtg boom & bracket	37.00	32 ⁹⁵
AOP-1 Oscar pack; A144-20T/416TB/A14T-MB	215.00	159 ⁹⁵

CUSHCRAFT - continued**BOOMER ANTENNAS**

617-6B 6m Boomer, 6 el, 34' boom, 14 db	\$290.00
124WB 2m Boomer, 4 el, 4' boom, 10.2db	45.00
4218XL 2m Boomer, 18 el, 28.8' boom, 17.2db	150.00
32-19 2m Boomer, 19 el, 22' boom, 16.2db	140.00
228FB 2 214FBs vert. stacked, 18db Dmwe	299.95
215WB 2m wideband Boom 15el, 15'bm, 15.5db	120.00
230WB 2 215WBs vert. stacked, 18.5db	320.00
220B 220 Boomer, 17el, 19' boom, 17db	140.00
224WB 220 Boomer, 4el, 3' boom, 10.2db	45.00
225WB 220 wideband Boom 15el, 10'bm, 15.5db	115.00
410B 432 Boomer, 10el, 6' boom, 15db	80.00
416TB 432 twist Boomer, 16el, 6' boom, 12db	85.00
PS-4 Remote polarity switch, needs 12v	95.00
424B 432 Boomer, 24el, 17 1/2'bm, 18db	120.00

BOOMER STACKING KITS*

617-SK Harness, pwr divider for 2 617-6Bs	\$ 85.00
32-SK Harness, power divider for 2 32-19s	70.00
224-QK Quad stacking kit for 4 32-19s	500.00
22-SK Harness, pwr divider; 2 215WBs/214Bs	65.00
230-VPK Vertical polarity kit; 2 215WBs	150.00
224-QK Quad stacking kit; 4 215WBs/214Bs	350.00
42-SK Harness, power divider for 2 4218XLs	75.00
228-VPK Vert polar kit for 2 214FBs Dwe	139.95
220-SK Harness, power divider for 2 220Bs	65.00
220-QK Quad stacking kit for 4 220Bs	350.00
PD-2 Power divider for 2 2m Boomers	35.00
PD-4 Power divider for 4 2m Boomers	44.00
PD-222 Power divider for 2 220Bs	32.00
PD-224 Power divider for 4 220Bs	44.00

VHF/UHF BEAMS (Horizontal polarization)

A50-3 6m, 3 el, 6' boom, 8 db	\$ 75.00
A50-5 6m, 5 el, 12' boom, 10 db	120.00
A50-6 6m, 6 el, 20' boom, 11 db	150.00
A144-7 2m, 7 el, 8' boom, 10 db	44.00
A144-11 2m, 11 el, 12' boom, 11 db	70.00
A220-11 220 MHz, 11 el, 8' boom, 13 db	68.00
A430-11 430 MHz, 11 el, 4' boom, 13 db	58.00

HORIZONTAL STACKING KITS* (Adds 3 db)

A535-SK For 2 A50-3s or 2 A50-5s	\$ 35.00
A561-SK For 2 A50-6s or 2 A50-10s	45.00
A17-SK For 2 A144-7s, 79" spacing	35.00
A11-SK For 2 A144-11s, 79" spacing	35.00
A41-SK For 2 A430-11s, 26" spacing	35.00

HORIZ. QUAD STACKING KIT* (Adds 6 db)

AQK-444 For 4 A430-11s	Dw\$154.95
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20 ELEMENT DX-ARRAYS

DX-120 2m, 118" high, 14 db	\$105.00
DX-420 430 MHz, 42" high, 14 db	75.00

40 ELEMENT STACKING KITS* (Adds 3 db)

DXK-140 For 2 DX-120s	Dmwf\$219.95
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DXK-440 For 2 DX-420s	Dmf 99.95
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80 ELEMENT STACKING KITS* (Adds 6 db)

DXK-480 For 4 DX-420s	Dmw\$189.95
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*Prices are for stacking kits only.

DX-ARRAY ACCESSORIES

DX-1BN 1:1 balun for DX-120	\$ 26.00
DX-2BN 1:1 balun for DX-220	26.00
DX-4BN 1:1 balun for DX-420	26.00

VHF FM MOBILE ANTENNAS

ATS-147 2m trunk mt 3db ant	De\$ 39.95
AMS-220 220 magnet mt 3db ant	Df 39.95
ATS-220 220 trunk mt 3db ant	Dmf 39.95

CUSHCRAFT/SIGNALS VHF/UHF MOBILE ANTENNAS

CS-50 6m 3/4" hole mt 3db antenna	\$ 44.00
CS-50M 6m magnet mt 3db antenna	50.00
CS-50T 6m trunk lip mt 3db antenna	50.00
CS-147 2m 3/4" hole mt 3db antenna	44.00
CS-147M 2m magnet mt 3db antenna	50.00
CS-147T 2m trunk lip mt 3db antenna	50.00
CS-147A 2m coil & whip only	32.00
CS-220 220 3/4" hole mt 3db antenna	44.00
CS-220M 220 magnet mt 3db antenna	50.00
CS-220T 220 trunk lip mt 3db antenna	50.00
CS-450 440 3/4" hole mt 5db antenna	44.00
CS-450M 440 magnet mt 5db antenna	50.00
CS-450T 440 trunk lip mt 5db antenna	50.00
CS-450A 440 coil & whip only	32.00

MOUNTS ONLY FOR ABOVE MOBILE ANTENNAS

CS-MG Magnetic mount	\$ 21.95
CS-TL Trunk lip mount	21.95

CUSHCRAFT/SIGFLEX PORTABLE ANTENNAS

BN-141 2m 6" BNC duck	\$ 14.00
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Reg Sale**CUSHCRAFT - continued**

BN-141S 2m 3" mini BNC duck	14.00
BN-141W 2m 5/8 wave 3db BNC whip	30.00
HT-141 2m 6" 5/16-32 thread duck	12.00
HT-141S 2m 3" mini 5/16-32 thread duck	12.00
BN-220 220 6" BNC duck	14.00
BN-220S 220 3" mini BNC duck	14.00
HT-220 220 6" 5/16-32 thread duck	12.00
HT-220S 220 3" mini 5/16-32 thread duck	12.00
BN-440B 440 6" BNC duck	14.00
BN-440C 440 2" mini BNC duck	14.00
BN-440U 440 12" 3db BNC duck	20.00
HT-440B 440 6" 5/16-32 thread duck	12.00
HT-440C 440 2" mini 5/16-32 thread duck	12.00

SKYWALKER HF BEAMS

40-2CD 40m, 2 el, 23' boom, 5.5 db	\$425.00
20-4CD 20m, 4 el, 32' boom, 10 db	400.00
20-3CD 20m, 3 el, 18' boom, 8 db	290.00
15-4CD 15m, 4 el, 20' boom, 10 db	180.00
15-3CD 15m, 3 el, 14' boom, 8 db	170.00
10-4CD 10m, 4 el, 17' boom, 10 db	160.00
10-3CD 10m, 3 el, 12' boom, 8 db	140.00

MULTIBAND VERTICAL ANTENNAS

AV-5 80/40/20/15/10m 25' vertical	\$150.00
AV-4 40/20/15/10m 19' vertical ant	140.00
AV-3 20/15/10m vertical ant, 14' high	75.00
AWV-3 30/16/12m WARC vertical ant Dve	85.00
AP-8 Powerwave 80-10m WARC 30' vertical	200.00
APR-18 Temporary radial kit for AP-8	32.00

ROTATABLE DIPOLES

D-3 20/15/10m World Ranger dipole	\$160.00
D-4 40/20/15/10m World Ranger dipole	215.00
D-40 40m World Ranger dipole	215.00
DW-3 30/16/12m WARC dipole	170.00

MULTIBAND BEAM ANTENNAS

A-3 20/15/10m, 3 el, 14' boom, 8 db	\$320.00
A-743 40m or 10 MHz add-on kit	110.00
A-3SK Stainless steel hardware kit	50.00
A-4 20/15/10m, 4 el, 18' boom, 9 db	430.00
A-744 40m or 10 MHz add-on kit	110.00
A-4SK Stainless steel hardware kit	60.00
AFB-2 160-10m 9-band balun	45.00

LIGHTNING ARRESTORS

LAC-1 SO-239/PL-259 coax arrester	\$ 8.00
LAC-2 SO-239/SO-239 coax arrester	8.00
LAC-3 SO-239/SO-239 thru wall (3 - 5" thick)	12.00
LAC-4 200w SO-239 gas tube arrester	30.00
LAC-4H 2kw SO-239 gas tube arrester	32.00
LAC-4N 200w type N gas tube arrester	36.00
LAC-4NH 2kw type N gas tube arrester	38.00
LC-2 Extra 200w cartridge for LAC-4/4N	12.00
LC-2KW Extra 2kw cartridge for LAC-4H/4NH	12.00
5VB Vinyl connector boots	pack of 5 8.00
ATS-1 2m turnstile ant for Shuttle	Dm 39.95



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DC SALES

Tenna Hitch Antenna mount for trailer hitch	\$ 29.95
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DAIWA METERS

CN-410M 80-2m 150w back lit SWR/power	\$ 80.00
CN-460M 140-450 MHz 150w back lit SWR/pwr	83.50
CN-465M 140-450 MHz 75w back lit SWR/pwr	83.50
CN-520 1.8-60 MHz 2kw SWR/power meter	79.50
CN-540 50-150 MHz 200w SWR/pwr Dmve	79.95
CN-550 144-250 MHz 200w SWR/power Dv	99.50
CN-720B 1.8-150 MHz 2kw/SWR/large meter	169.95
NS-660A 1.8-150 MHz 3kw meter	153.00
NS-660PA 1.8-150 MHz 3kw PEP meter	175.00
NS-663A 140-525 MHz 300w meter	170.00
NS-663AN 140-525 MHz 300w type N meter	199.00
NS-663PAN 140-525 300w type N PEP meter	210.00

COAX SWITCHES

CS-201 2 position 600 MHz SO-239 switch	\$ 24.00
CS-201G 2 position 1.3 GHz type N switch	44.00
CS-401 4 position 800 MHz SO-239 switch	79.00
CS-401G 4 position 1.3 GHz type N switch	98.00
CS-4 4 position 1.5 GHz BNC coax switch	40.00

Reg. Sale**DAIWA - continued****ANTENNA TUNERS**

CNW-419 1.8-30 MHz 200w manual tuner	\$225.00	189 ⁹⁵
CNW-518 80-10m 8-band 1kw manual tuner	368.00	299 ⁹⁵
CL-680 1.8-30 MHz 200w tuner, no meter	135.00	119 ⁹⁵

ANTENNA ROTATORS

MR-300E High speed rotator w/CR-4 controller	\$299.95	269 ⁹⁵
MR-300U Additional motor unit for MR-300E	109.95	99 ⁹⁵
MR-750E One motor unit w/CR-4 controller	299.95	269 ⁹⁵
MR-750PE One motor unit, CR-4P preset control	365.00	319 ⁹⁵
MR-750U Extra motor unit; MR-750E/PE	109.95	99 ⁹⁵
MS-1 Lower mast bracket	28.50	

DIAMOND (See Encomm)**DIGIMAX (DMI)**

D-500 512 MHz 8-dig counter - 1PPM	\$149.95	134 ⁹⁵
D-510 1 GHz 8-dig counter - 1PPM	179.95	159 ⁹⁵
D-612 1.2 GHz 9-dig counter - 1PPM	259.95	229 ⁹⁵
D-1200 1.2 GHz 1PPM 9-dig ctr/audio mult	299.95	269 ⁹⁵
LCD-1000 1 GHz 1PPM 6-dig hand-held ctr/ps	189.00	169 ⁹⁵

AC-12 9vdc adaptor	8.95	
AM-12 10X/100X audio multiplier	39.95	
AM-500X X10/X100 audio multiplier	69.95	62 ⁹⁵
B-12 Dry cell holder, switch for D612	10.95	
BAC-12 Nicad batt pack for D612/D1200	34.95	
BAC-5 Nicad batt pack for D500/D510	29.95	
PA-1300 10MHz - 1.3 GHz 33db preamp/ps	89.00	79 ⁹⁵
RF-500X Inline RF sampler, 250w maximum	39.95	
T-1200 21" BNC telescopic ant	8.95	

DOW-KEY

60-262842 110vac ant relay, ext contacts	\$135.00
60M-115VAC Replacement ac coil	29.95
60-222842 12vdc ant relay w/ext contacts	124.50
60M-12VDC Replacement dc coil	21.95
DK60DPDT Replacement external contacts	15.00

DRAKE

NB-7A Noise blanker for R-7 Rcvr	Dv\$ 90.00	59 ⁹⁵
550 Receive only comm terminal	Dmv 499.95	169 ⁹⁵
7030 12" green screen monitor DEMO	Df 159.95	79 ⁹⁵
1549 200w antenna surge shunt	Dmf 19.95	14 ⁹⁵
LF-6 6-outlet AC line filter	Dme 69.95	49 ⁹⁵

ETO

Alpha 76A Linear amplifier (2-8874s)	1985.00	1695
Alpha 76PA Linear amplifier (3-8874s)	2395.00	1995
Alpha 76CA As 76PA, w/lightweight xfmr	2695.00	2295
Alpha 374A No tune up linear (2-8874s)	2595.00	2195
Alpha 78 No tune, CW break-in (3-8874s)	3495.00	2895
Alpha 77DX CW break-in linear (8877)	A 5690.00	4895

EIMAC TRANSMITTING TUBES

3-400Z/8163	\$114.00	4CX250B/7203	\$ 78.00
3-500Z	109.95	4CX1000A/8168	564.00
3-500Z 2&up ea	105.00	4X150A/7034	75.60
3-1000Z/8164	644.00	8873	334.00
3CX800A7	337.00	8874/3CX400A7	330.00
3CX1200A7	471.00	8875	347.00
4-400A/8438	120.00	8877/3CX1500A7	814.00

ENCOMM

Santec ST-440/uP 3w 440 HT	Dfve\$329.95	169 ⁹⁵
Santec ST-442 Super Handy 440 HT Dmwv	379.95	189 ⁹⁵

The above Encomm HT's come complete with nicad battery, wall charger, rubber antenna & TTP.

ST-600B3 Extra batt (HT-1200 needs mod)	32.95	
ST-LC/SS Leather case w/shoulder strap	34.95	
ST-MC Mobile charger cord	6.95	
ST-EC External charge adapter	Dmf 4.95	
ST-15BC Desk charge stand; use ext ps Dwe	19.95	
ST-EMC External mic connector	9.95	
SM-3 Speaker/mic	Dm 34.95	
MS-50S Remote spkr w/2.5mm plug	22.95	
SS-32(A) 32-tone CTCSS encoder	29.95	
ST-G32 Encoder; Super Handy	Dmf 59.95	19 ⁹⁵
ST-CLP Belt clip only	4.95	
ST-CLPBK Belt clip, back cover assembled	9.95	
ST-HA1/HBM-1 Headset/boom mic/adapt	39.95	
ST-VOX Santec headset VOX board	19.95	14 ⁹⁵

Accessories for LS-202A

NP-9 10.8V nicad battery	Dmf\$ 52.95	29 ⁹⁵
CA-910 7.2V charger (opt hi current)	Dm 17.95	9 ⁹⁵
CA-110 10.8V charger (opt hi current)	Dm 17.95	9 ⁹⁵
ST-200ET 1.5w 2m HT/batt/cgr/TPPDmwfce	249.95	189 ⁹⁵
ST-200ET HT/spkr mic/extra batt/case/mob cord		199 ⁹⁵
ST-400ET 1.5w 440 HT/batt/cgr/TPPDmfce	299.00	259 ⁹⁵
ST-400ET HT/spkr mic/extra batt/case/mob cord		269 ⁹⁵

See next page for ST-200ET/400ET Special.

ENCOMM - Continued

Reg Sale

For a Limited time! • Purchase either an **ST-200ET** or **ST-400ET**, at the Sale Price, and you can get the **BP** extra Battery Pack, **LC** Soft Case, **SM1** Speaker microphone, and **MC** Mobile Charger Cord for only \$10 additional.

Santec ST-20T 3.5w 2m HT/batt/cgr/TTP □mfce	369.95	249 ⁹⁵
KA-144BH Extra rubber ant specify band	6.95	
KCS-100 Dual 1 hr charger for KT-BP450	99.95	
KCS-200 Wall charger for KT-BPH/BPS	27.95	
KT-BA/BA-2 Alkaline battery case	12.95	
KT-BC Extra wall charger for KT-BP/BP2	13.95	
KT-BMC Mobile pwr cord, no current limit	6.95	
KT-BP Extra 250ma 8.4v batt; 200/400Dmwfve	29.95	
KT-BP2 Extra 250ma 9.6v batt for ST-20T	36.95	
KT-BP450/BPH 450ma 10.8v battery	64.95	
KT-BPS 450ma 13.2v batt for ST-20T	76.95	
KT-LC Soft case for ST-200/400Dmwfve	11.95	
KT-LC2 Leatherette case for ST-20T	12.95	
ST-MC Mobile charger cord	6.95	
ST-VOX Santec headset VOX board □v	19.95	
KT-SM1 Speaker/microphone	26.95	
KT-TB37 Encoder board for ST-400 D	56.95	
HSA-2/HBM-1 Headset/boom mic; ST-200	34.95	

ST-20T/200/400ET also use most Icom 2AT accessories

KDK/SANTEC (Encomm)

FM-240 25w 2m FM Xcvt w/TTP mic/toneD	\$399.95	299 ⁹⁵
FM-240NT 25w 2m FM w/TTP, no CTCSS tone□v	399.95	269 ⁹⁵
FM-34TE CTCSS encode/decode board □	34.95	
FM-7033 10w 440 MHz FM Xcvt	359.95	249 ⁹⁵
FM-740 10w 440 MHz FM Xcvt □m	399.95	299 ⁹⁵

Tokyo High-Power Labs (Encomm)

HL-1K/A 1kw PEP compact HF amp (4CX250Bs)	\$995.00	949 ⁹⁵
HL-30V 2m 3/30w FM amplifier	79.95	74 ⁹⁵
HL-35VL 2m 3/30w FM/SSB amp/preampDme	99.95	89 ⁹⁵
HL-37V 2m 3/30w FM/SSB amp/preamp	99.95	94 ⁹⁵
HL-62V 2m 10/50w FM/SSB amp/gaasfetDm	169.95	129 ⁹⁵
HL-85V 2m 10/85w FM/SSB amp/preamp	199.95	189 ⁹⁵
HL-110V 2m 3/100w FM/SSB amp/preamp	299.95	269 ⁹⁵
HL-160V 2m 3/10/160w FM/SSB amp/preamp D	359.95	299 ⁹⁵
HL-160V25 2m 25/160w fm/ssb amp/pre Dmfc	369.95	299 ⁹⁵
HL-250V25 2m 25/250w FM/SSB amp/preamp	459.95	419 ⁹⁵
HL-725D 2m 10/60w/440 10/50w FM/SSB/pre □e	329.95	299 ⁹⁵
HL-22V 220 3/20w FM amp/preamp □v	99.95	
HL-102V 220 25/90w FM amp/preamp □v	299.95	249 ⁹⁵
HL-30U 440 2/30w FM/SSB amp/gaasfet	189.95	174 ⁹⁵
HL-60U 440 10/50w FM/SSB amp/preamp	229.95	209 ⁹⁵
HL-120U 440 10/100w FM/SSB amp/preamp	429.95	389 ⁹⁵
HRA-2 2m mast mt gaasfet preamp □v	149.95	139 ⁹⁵
HRA-7 440 mast mt gaasfet preamp □v	149.95	139 ⁹⁵
HC-200/A 8-band 200w PEP tuner/SWR/switch	134.95	124 ⁹⁵
HC-400L 9-band 400w PEP ant tuner/SWR	249.95	229 ⁹⁵
HC-2000 9-band 2kw PEP ant tuner/SWR	419.95	389 ⁹⁵

Accessories for HT-7

HBP-7 Nicad pack w/charger	Dm\$ 39.95	9 ⁹⁵
HLC-7 Leatherette case	Dm 8.95	2 ⁹⁵
HSM-7 Spkr/mic (also for Icom/Kenwood)Dm	26.95	24 ⁹⁵
HTE-7 Tone encoder	Dm 26.95	9 ⁹⁵
HVX-7 VOX module	Dm 21.95	9 ⁹⁵
440 Xtal certificate for HT-7	□ 8.00	

WELZ (Encomm)

SP-600 1.8-500MHz 20/200/2kw wattmeter Dfve	\$199.95	169 ⁹⁵
SP-420 140-525 MHz 200w wattmeter	99.95	89 ⁹⁵
SP-122 1.6-60 MHz 2kw PEP wattmeter Dm	84.95	79 ⁹⁵
SP-120 1.6-60 MHz 2kw PEP wattmeter	116.95	109 ⁹⁵
SP-380 Mobile 1.8-500MHz 200w wattmeter Dmve	104.95	89 ⁹⁵
SP-10X Compact 1.8-150 MHz 200w wattmeter	59.95	
SP-230 1.8-200 MHz 200w PEP wattmeter	89.95	82 ⁹⁵
SP-230 1.8-150MHz 150w PEP meter, sep sensor	74.95	69 ⁹⁵
SP-430 2m/430 60w wattmeter, sep sensor	74.95	69 ⁹⁵
TP-05X Handheld 50-500 MHz 5w wattmeter	28.95	
TP-25A Handheld 50-500 MHz 25w meter/load	36.95	
CT-20A DC-500 MHz 50w peak dummy load	21.95	
CH-20A 2 pos DC-900 MHz 1kw ant switch	39.95	

DIAMOND (Encomm)

D-130 25-1300 MHz discone antenna	\$ 84.95	
DX-50 2m 4.5db/440 7.2db base station ant	79.95	
DX-200 2m 6db/440 8db base station ant	104.95	
MX-72 250w 2m/440 duplexer	36.95	

KENPRO (Encomm)

KR-500 Heavy duty elevation rotor (8-wire)	\$224.95	189 ⁹⁵
KR-2000RC Extra heavy duty rotor (8-wire)□mf	549.95	459 ⁹⁵
KR-5400A Azimuth and elevation rotor combo	389.95	339 ⁹⁵

ENCOMM - Continued

Reg Sale

KR-5600A Hvy duty azimuth/elevation combo	489.95	439 ⁹⁵
KR-010 RS-232 computer interface; 5400/5600	269.95	259 ⁹⁵

FALCON

ALL MODE BIPOLAR MOBILE AMPLIFIERS

5121 2m FM/SSB 2/150w HT amplifier	\$285.00	256 ⁹⁵
5122 2m FM/SSB 10/150w amplifier SO	275.00	246 ⁹⁵
5123 2m FM/SSB 30/150w amplifier	235.00	209 ⁹⁵
5124 220 FM/SSB 30/120w amplifier	240.00	216 ⁹⁵

ALL MODE MOSFET MOBILE AMPLIFIERS

4105 2m FM/SSB 2/100w amplifier	\$335.00	299 ⁹⁵
4103 2m FM/SSB 12/100w amplifier	280.00	249 ⁹⁵
4104 220 FM/SSB 10/100w amplifier	280.00	249 ⁹⁵

MOSFET BASE/REPEATER AMPLIFIERS

4114 2m FM/SSB 2/100w amplifier	\$435.00	389 ⁹⁵
4111 2m FM/SSB 12/100w amplifier	370.00	329 ⁹⁵
5113 2m FM/SSB 6/50w amplifier SO	295.00	264 ⁹⁵
4112 220 FM/SSB 10/100w amplifier	370.00	329 ⁹⁵

PREAMPS

4109 2m plug-in preamp	\$ 36.00	
4110 220 plug-in preamp	39.00	

Falcon stocked only in Milwaukee Store

FANS

TRW W2S-075 3 1/2" x 1 1/2" thick fan	\$ 29.95	
TRW W2S-107 4-11/16" x 1 1/2" thick fan	28.95	

GAMBER-JOHNSON

SS-100 Super slide mount w/ant plug	\$ 49.00	39 ⁹⁵
SS-101 Extra base for SS-100	23.00	18 ⁹⁵

HAL

CT-2200 Communications receive term Dm	\$945.00	699 ⁹⁵
CT-2100 Communications rcv term Dmwfve	845.00	299 ⁹⁵
KB-2100 Keyboard for CT-2100/2200Dmfv	175.00	149 ⁹⁵
Service manual for CT-2100	Dm 15.00	
DS-2050 w/MR-2000 morse rcv option Dm	808.00	249 ⁹⁵
CWR-6750 Rcv only port reader w/monitor	495.00	429 ⁹⁵
CWR-6700 Receive only portable reader	295.00	269 ⁹⁵
PCI-2000 Interface/software for IBM-PC	645.00	569 ⁹⁵
PCI-EXT Connector expander for PCI-2000	95.00	
SPT-1 Spectra Tune tuning indicator	169.00	149 ⁹⁵
CRI-100 Interface* w/2 crossed lines □m	249.00	129 ⁹⁵
*Compatible with popular software.		
ST-5000*Demodulator/keyer	295.00	269 ⁹⁵
*Specify high or low tones		

See Panasonic for Monitors

PRINTERS

OKI-Data 182 Dot matrix printer	\$299.00	249 ⁹⁵
2K Buffer for 182	90.00	
Extra ribbon cartridge for 182	8.95	
Parallel printer cable; DSK-3100 □m	50.00	29 ⁹⁵
Parallel printer cable; CWR-6850/6700	50.00	
Serial printer cable; CT-21/2200/DS-3100	50.00	
Fan-fold paper	case 34.95	29 ⁹⁵
256 Buffer for 82A	Dm 130.00	29 ⁹⁵

COMMERCIAL EQUIPMENT (May Be Special Order)

DS-3200 Radio data communications terminal	2395.00	
DS-3200HD As abv, w/hard drive Federal Exp only	2995.00	
RMVID-3200 Rack mount video option	150.00	
RPC-2000 Radio packet controller	395.00	
Second on-board modem option kit	40.00	
DS-3100 ASR term (earlier version) sn 649 Dm	2195.00	1295
RMX-3100 Radio multiplexer (VHF to HF)	549.00	499 ⁹⁵
RMX-PPC Printer/clock option	100.00	
RMX-C1 RMX to DS-3100 6' cable	75.00	
ST-6000*HF modem/fixed freq shifts DEMO□m	995.00	799 ⁹⁵
ST-6000* HF modem w/fixed freq shifts	995.00	899 ⁹⁵
*Specify high or low tones		
ST-8000 HF modem w/tunable shifts/bauds	3495.00	
ARQ-1000A Error correction terminal	1395.00	1299
WX-1000 Weather Box Weather line interface	1995.00	
C-1 DS-3100/ST-6000 cables	70.00	
C-2 CT-2100/2200/CWR-6850 cables	35.00	
C-3 DS-3100/ST-6000/ARQ-1000	70.00	
C-4 ARQ-1000 & CT-2200 cables	70.00	
Parallel printer cable; DS-3200 w/RF shield	50.00	
RS-232 serial cable; DS-3200/ST-8000/RFI shield	50.00	
Parallel printer cable for DSK-3100	50.00	
Serial printer cable for DSR-3100ASR	50.00	

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HAM-KEY

RFI-02 Hi-Fi RF filter	Df\$ 14.95	9 ⁹⁵
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HEIL

Reg Sale

BM-10 Boom mic/headset	\$ 64.95	
BM-10-I Boom mic/headset for late model Icom	74.95	
BM-10-K Boom mic/headset wired for Kenwood	69.95	
BM-10-K4 Boom mic/headset wired for Kenwood	74.95	
BM-10-Y Boom mic/headset wired for Yaesu	74.95	
HC-4 DX'ers 'dream machine' mic element	24.95	
HC-5 Mic element for Icom SM-5/6	24.95	
HCS Headset control unit	99.95	89 ⁹⁵
HM-5 Desk microphone	64.95	
SS-2 Sound system (speaker)	D 59.95	
MB-1 Mobile bracket for SS-2	9.95	

HENRY

2KD Classic Linear amplifier (3-500Zs) A	1295.00	1169
2K Classic Linear amplifier (3-500Zs) A	1395.00	1259
3K Classic Mk II Amplifier (3CX1200A7) A	2495.00	2249
3KD Premier Linear amplifier w/QSK A	1980.00	1789
3K Premier Linear amplifier w/QSK A	2995.00	2695
2002A* 2m 1kw SSB/FM amp (3CX800A7)A	1295.00	
2002A-220* 220 1kw amp (3CX800A7) A	1295.00	
2004A* 440 1kw amp (3CX800A7) A	1395.00	
3002A Console* 2m 1kw SSB/FM amp A	2295.00	
3004A Console* 440 1kw SSB/FM amp A	2295.00	
Antenna relay option*; 2004A/3000-series 275.00		
*Special Order		

HUSTLER

RM-80 80m CW 400w PEP resonator	\$ 24.95	19 ⁹⁵
RM-75 75m phone 400w PEP resonator	24.95	19 ⁹⁵
RM-40 40m 400w PEP resonator	23.95	18 ⁹⁵
RM-30 30m 400w PEP resonator	22.95	17 ⁹⁵
RM-20 20m 400w PEP resonator	19.95	16 ⁹⁵
RM-17 17m 400w PEP resonator	19.95	16 ⁹⁵
RM-15 15m 400w PEP resonator	13.95	12 ⁹⁵
RM-12 12m 400w PEP resonator	13.95	12 ⁹⁵
RM-11 11m 400w PEP resonator	13.95	12 ⁹⁵
RM-10 10m 400w PEP resonator	13.95	12 ⁹⁵
RMX-B Black 10m resonator w/mast	31.95	26 ⁹⁵
RMX-W White 10m resonator w/mast	31.95	26 ⁹⁵
RM-80S 80m CW 2kw PEP resonator	49.95	39 ⁹⁵
RM-75S 75m phone 2kw PEP resonator	49.95	39 ⁹⁵
RM-40S 40m 2kw PEP resonator	33.95	27 ⁹⁵
RM-20S 20m 2kw PEP resonator	26.95	22 ⁹⁵
RM-15S 15m 2kw PEP resonator	22.95	19 ⁹⁵
RM-11S 11m 2kw PEP resonator	21.95	18 ⁹⁵
RM-10S 10m 2kw PEP resonator	21.95	18 ⁹⁵
MO-1 54" mast for fender or deck mount	29.95	24 ⁹⁵
MO-2 54" mast for bumper mount	29.95	24 ⁹⁵
MO-3 54" no break-over mast	21.95	18 ⁹⁵
X-pand-5 Device for mtg 5 coils on 1 mast	14.95	
VP-1 Tri-band adapter	5.95	
RSS-2 Resonator spring	8.95	
QD-1 Stainless quick disconnect	18.95	
L-14-144 12' RG-58, PL-259 to lugs	8.95	
L-14-240 20' RG-58, PL-259 to lugs	11.95	
LU-216 18' RG-58, PL-259s both ends	12.95	

STAINLESS 2" MOBILE BALL MOUNTS

SSM-1 Ball & spring, cadmium hardware	\$ 43.95	38 ⁹⁵
SSM-2 Ball, cadmium hardware	23.95	19 ⁹⁵
SSM-3 Stainless steel spring only	22.95	18 ⁹⁵

1 1/2" MOBILE BALL MOUNTS

C-32 Chrome plated ball	\$ 10.95	
C-30 Chrome plated spring	10.95	
C-29 Stainless steel spring	16.95	
BM-1 Single strap bumper mt w/C-32	19.95	17 ⁹⁵

3/8-24 THREAD MOBILE MOUNTS

GCM-1 Rain gutter mount	\$ 11.95	
HLM Trunk lip mount w/swivel	21.95	
HOT Hustloff trunk lip mt w/swivel	22.95	
MM-1 Cowl mount w/SO-239 & 3/8-24 base	12.95	
MM-3 Universal mt with 17' coax	19.95	
RVM Recreational vehicle mount	19.95	
TGM-1 Trunk grove mount	11.95	
TLM Trunk lip mount	19.95	

HF ANTENNAS

3-TBA 3el tri-band beam, 14'bm, 8db Dw	\$349.95	199 ⁹⁵
4-BTV 40/20/15/10m 21' trap vertical	129.95	89 ⁹⁵
5-BTV 80/40/20/15/10m 25' trap vertical	169.95	119 ⁹⁵
30-MTK 30m trap kit for 4-BTV/5-BTV	39.95	34 ⁹⁵
6-BTV 80/40/30/20/15/10m 24' trap vert	199.95	139 ⁹⁵
10-MB4 4 el 10m beam, 9.4 db	139.95	109 ⁹⁵
BLN 14-30 MHz 1:1 balun	D 17.95	14 ⁹⁵

HUSTLER - continued		Reg	Sale	HY-GAIN - continued		Reg	Sale	HY-GAIN - continued		Reg	Sale
VHF BASE STATION ANTENNAS				OSCART LINK ANTENNA				OPTIONAL ACCESSORIES FOR ROTORS			
G6-144B 2m 6 db 10' vertical ant	\$119.95	89 ⁹⁵		338 GPG2A 2m 3.4 db ground plane	44.00	39 ⁹⁵		51467-10 Lower mast support kit; H-4/T ² X	\$ 80.00	69 ⁹⁵	
G7-144 2m 7 db 15' vertical ant	169.95	126 ⁹⁵		335S V-2S 2m 3 db ground plane ant	80.00	64 ⁹⁵		51472-10 Extra lower mast support; CD-45	25.50		
G7-220 220 MHz 7 db 10' vertical ant	159.95	119 ⁹⁵		336S V-3S 220 3 db ground plane ant	80.00	64 ⁹⁵		50559-10 Tower spacing kit	19.00		
G6-440 440 MHz 6 db 7' vertical ant	149.95	109 ⁹⁵		337S V-4S 440 3 db ground plane ant	96.00	79 ⁹⁵		50924-10 South ctr kit; CD-45/H-4/T ² X Dw	7.00	4 ⁹⁵	
6-MB3 6m 3 el beam, 6 db	79.95	49 ⁹⁵		OSCART LINK ANTENNA				TELEX HAND MICROPHONES			
VHF MOBILE ANTENNAS				216S 2m 16 el 145.9 MHz 11.5 db beam	\$165.00	129 ⁹⁵		63540 ProCom I Fixed output condensor mic Dm	\$ 29.95	9 ⁹⁵	
BBL-144A 2m FM 3/4" hole mt ant, 3.4 db	39.95	24 ⁹⁵		215S 435 MHz 30 el 14 db beam	145.00	114 ⁹⁵		47132 AMM-47 Lo-Z amplified dynamic mic Dm	42.95	9 ⁹⁵	
MAG-2 Magnet mt w/coax for BBL-series	21.95			217 60" x 1 1/2" fiberglass crossboom	70.00	59 ⁹⁵		TELEX LIGHTWEIGHT HEADPHONE			
BBLT-144A 2m FM trunk lip mt ant, 3.4 db	47.95	24 ⁹⁵		218S Complete Oscar antenna system	365.00	269 ⁹⁵		18135-013 HFC-91 1 mag driver, 3.2-20 ohms Dm	\$ 18.90	9 ⁹⁵	
BBLT-440 440 FM gain trunk lip mt ant	34.95	29 ⁹⁵		VHF/UHF MOBILE ANTENNAS				TELEX DUAL MUFF HEADPHONES			
MAG-3 Magnet mt w/coax for BBLT-440 D	21.95			251 HC-144-TLM 2m low profile tnk mt ant Dwfv	\$ 43.00	19 ⁹⁵		61630-063 C-610 Magnetic, 3.2-20 ohms Dm	\$ 15.80	7 ⁹⁵	
CG-144 2m FM 3/4-24 ant, 7' high, 5.2 db	29.95	26 ⁹⁵		253 HC-MAG 108-450MHz 1/4 wv mag ant Dmfv	43.00	19 ⁹⁵		63610-010 PC-100 Dynamic, 8-200 ohms Dm	20.00	14 ⁹⁵	
CGT-144 2m FM tnk mt ant, 7' high, 5.2 db	49.95	44 ⁹⁵		254 HC-440-TLM 440 low prof 5db tnk ant Dwfc	45.00	9 ⁹⁵		ICOM			
CG-220 220 FM 3/4-24 ant, 5.2 db gain	29.95	26 ⁹⁵		286 HB-144-TLM 2m FM fold 3db tnk/hatch Dw	21.00	89 ⁹⁵		IC-761 Xcvr/.1-30 MHz Rcvr/ps/auto tuner	2499.00	2149	
CGT-220 220 MHz 5.2 db trunk mt ant	49.95	44 ⁹⁵		270 HG-144-GRI 2m FM fg ant, 3/4-24, 6 db	113.50	84 ⁹⁵		EX-310 Voice synthesizer	46.00		
MAG-1 3/4-24 thread magnet mt/swivel w/coax	21.95			285 HB-144-GRI 2m 6db no ground ant	102.50	29 ⁹⁵		FL-53A 250 Hz CW filter (2nd IF)	108.00	99 ⁹⁵	
MKR-2 Radial kit for SF-2, CG-144	19.95			287 HB-144-MAG 2m FM fold 3 db mag ant	35.50			FL-101 250 Hz CW filter (1st IF)	69.95		
SF-2 2m FM 3/4-24 ant, 4' high, 3.4 db	13.95			2m FM Flexible Antennas for HT's				FL-102 6 KHz AM filter	56.00		
SF-220 220 MHz 3 db 3/4-24 ant	13.95			274 HRD-144-BNC With BNC connector Dm	\$ 10.95	4 ⁹⁵		HM-36 Scanning hand mic	44.50		
SGM-2 2m FM 3/4 wave magnet mt ant	36.95	32 ⁹⁵		275 HRD-144-PL With PL-259	Dcv 7.95	2 ⁹⁵		MB-19 Rack mounting handles	TBA		
THF 140-500 MHz 1/4 wave trunk mt ant	21.95	19 ⁹⁵		ACCESSORIES & MISCELLANEOUS				SP-20 Speaker w/audio filter	149.00	139 ⁹⁵	
UGM 140-500 MHz 1/4 wave BNC mag mt ant	19.95			155S CI Center insulator for doublets	\$ 13.50	79 ⁹⁵		UT-30 Tone encoder	17.50		
UHT-1 140-500 MHz 1/4 wave roof mt ant	13.95			156 EI 7" doublet end insulators	pair 8.00	49 ⁹⁵		IC-751 Xcvr/.1-30 MHz Rcvr w/mic	Dw 1399.99	999 ⁰⁰	
HVA-225 2m 2/25w amplifier	99.95	69 ⁹⁵		157S CIC Dipole center insulator w/SO-239	24.00	32 ⁹⁵		IC-751A Xcvr/.1-30 MHz Rcvr/mic/kyr/cw flt	1649.00	1399	
				229 LA-1 Deluxe lightning arrestor	99.50	2 ⁹⁵		PS-35 Internal power supply	199.00	179 ⁹⁵	
				LA8A4C (Dale) Similar to above		49 ⁹⁵		PS-15 20A power supply	169.00	154 ⁹⁵	
				242S BN-86 80-10m balun	36.50	2 ⁹⁵		FL-32A 500 Hz CW filter (1st IF) for IC-751	66.50		
				409 FOA Fold-over adaptor; 3/4-24	Dm 7.40	12 ⁹⁵		FL-63A 250 Hz CW filter (1st IF)	54.50		
				415/S BPR Single strap bpr mt, 3/4-24 Dmfv	22.00	19 ⁹⁵		FL-52A 500 Hz CW filter (2nd IF)	108.00	99 ⁹⁵	
				498 BDYD Deluxe ball mount	Dm 30.00			FL-53A 250 Hz CW filter (2nd IF)	108.00	99 ⁹⁵	
								FL-33 AM filter	35.25		
								FL-70 2.8 KHz wide SSB filter	52.00		
								HM-12 Extra hand microphone	44.50		
								SM-6 Desk microphone	44.95		
								CR-64 High stability oscillator crystal	63.00		
								EX-310 Voice synthesizer	46.00		
								RC-10 10-key external freq controller	39.25		
								SP-3 External speaker	61.00		
								SP-7 Small external speaker	49.00		
								MB-18 Mobile mount	24.50		
								PP-1 Speaker/patch	179.00	164 ⁹⁵	
								CF-1 Cooling fan	45.00	39 ⁹⁵	
								EX-182 Interface; plain 720/2KL/AH-1	31.00	2 ⁹⁵	
								FL-34 5.2 KHz AM filter for IC-720A	55.50		
								IC-745 9-band Xcvr/.1-30 MHz Rcvr/mic D	1049.00	899 ⁹⁵	
								PS-35 Internal power supply	199.00	179 ⁹⁵	
								PS-15 20A power supply	169.00	154 ⁹⁵	
								EX-241 Marker unit	22.50		
								EX-242 FM unit	44.00		
								EX-243 Electronic keyer unit	56.00		
								FL-45 500 Hz CW filter (1st IF)	66.50		
								FL-54 270 Hz CW filter (1st IF)	53.00		
								FL-52A 500 Hz CW filter (2nd IF)	108.00	99 ⁹⁵	
								FL-53A 250 Hz CW filter (2nd IF)	108.00	99 ⁹⁵	
								FL-44A SSB filter (2nd IF)	178.00	159 ⁹⁵	
								HM-12 Extra hand microphone	44.50		
								SM-6 Desk microphone	44.95		
								SP-3 External speaker	61.00		
								SP-7 Small external speaker	49.00		
								MB-12 Mobile mount	24.50		
								PP-1 Speaker/patch	179.00	164 ⁹⁵	
								FL-30 SSB filter (PB tuning); IC-730	66.50		
								EX-195 Marker unit for IC-730	44.00		
								EX-202 LDA interface; 730/2KL/AH-1	31.00		



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HY-GAIN CRANK-UP TOWERS

129 HG-37SS 37' self-supporting tower T	1400.00	949 ⁹⁵
125-1 HG-52SS 52' self-supporting tower T	2050.00	1389
130-1 HG-54HD 54' hvy duty self-support T	3150.00	2099
131-1 HG-70HD 70' hvy duty self-support T	5000.00	3299
116 HG-5 5' 2" OD .120 wall steel mast T	85.00	79 ⁹⁵
117 HG-10 10' 2" OD .120 wall steel mast T	108.00	99 ⁹⁵
118 HG-15 15' 2" OD .120 wall steel mast T	176.00	159 ⁹⁵
121B HG-TBT Thrust bearing w/sleeve	92.00	84 ⁹⁵
122 HG-COA Coax arm*, tower legs 1"-1 1/2"	25.00	

*One required per section.

140 HG-TOA Tilt-over 'gin-pole'; SS/HD twrs 599.50 429⁹⁵

Hy-Gain Towers are shipped PREPAID (Hy-Gain's expense) via truck directly to you from the factory (in the 48 states). In addition, any other Hy-Gain items, such as antennas, rotors, or accessories (except Custom Line) ordered at the same time as a Hy-Gain tower will also be shipped PREPAID from the factory. On these factory drop-shipments we prefer payment in full with order, however, we will accept your Mastercard or Visa with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Please allow sufficient delivery time on factory drop-shipments.

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305 AR-40 Solid state light duty rotor	210.00	149 ⁹⁵
302 CD-45-II Medium duty rotor	295.00	199 ⁹⁵
304 HAM IV H-4 Heavy duty rotor	419.00	289 ⁹⁵
303 T ² X Tailtwister Extra heavy duty rotor	499.50	339 ⁹⁵
300 HDR-300 Deluxe digital rotor	1095.00	729 ⁹⁵

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ICOM - continued		Reg	Sale
EX-203 150 Hz CW audio filt; IC-730 □mfve	44.00		
EX-205 Xvtr switching unit for IC-730 □m	32.50		
IC-735 Xcvr/SW Rcvr w/mic	999.00	869 ⁹⁵	
PS-55 Power supply	199.00	179 ⁹⁵	
PS-15 20A power supply	169.00	154 ⁹⁵	
AH-2 Antenna tuning sys w/bpr mt & whip	625.00	549 ⁹⁵	
AH-2A Antenna tuning system only	495.00	429 ⁹⁵	
AT-150 100w 9-band automatic ant tuner †	445.00	349 ⁹⁵	
FL-32A 500 Hz CW filter	66.50		
FL-63A 250 Hz CW filter	54.50		
EX-243 Electronic keyer unit	56.00		
SM-6 Desk microphone	44.95		
SP-3 External speaker	61.00		
SP-7 Small external speaker	49.00		
MB-5 Mobile mount	24.50		
UT-30 Tone encoder	17.50		
PP-1 Speaker/patch	179.00	164 ⁹⁵	
IC-2KL 160-15m/WARC solid state linear †	1999.00	1699	
AH-1 5-band mobile ant w/tuner	289.00	169 ⁹⁵	
AH-2 Antenna tuning sys w/bpr mt & whip	625.00	549 ⁹⁵	
AH-2A Antenna tuning system only	495.00	429 ⁹⁵	
OPC-137 Adapter; AH-2/2A to IC-751/745	16.00		
AT-100 100w 8-band automatic ant tuner	445.00	389 ⁹⁵	
AT-150 100w 9-band automatic ant tuner †	445.00	349 ⁹⁵	
AT-500 500w 9-band automatic ant tuner	559.00	489 ⁹⁵	
OPC-118 Adapter; AT-100/500; 735/761	16.95		

SHORTWAVE RECEIVERS

IC-7072 Xcv interface; R-70/720A ... Dmw	\$112.50	19 ⁹⁵	
R-71A 100 KHz-30 MHz dig keyboard Rcvr	949.00	799 ⁹⁵	
RC-11 Infrared wireless remote control	67.25		
FL-32A 500 Hz CW filter	66.50		
FL-63A 250 Hz CW filter	54.50		
FL-44A SSB filter	178.00	159 ⁹⁵	
EX-257 FM unit	42.50		
EX-310 Voice synthesizer	46.00		
CR-64 High stability oscillator crystal	63.00		
SP-3 External speaker	61.00		
CK-70 (EX-299) 12v DC option	12.25		
MB-12 Mobile mount	24.50		
R-7000 25 MHz-2 GHz scanning receiver	1099.00	949 ⁹⁵	
AH-7000 Radiating antenna	89.95		
RC-12 Infrared wireless remote control	67.25		
EX-310 Voice synthesizer	46.00		
SP-3 External speaker	61.00		
CK-70 (EX-299) 12v DC option	12.25		
MB-12 Mobile mount	24.50		
TV-R7000 ATV unit for R-7000	131.95	119 ⁹⁵	

6m TRANSCEIVERS

EX-107 VOX for IC-551	□\$ 61.50		
EX-108 Passband tuning/RF proc; 551	□ 117.50	107 ⁹⁵	
EX-106 FM adaptor for IC-551/551D	140.00	126 ⁹⁵	
EX-248 FM unit for IC-505	□mv 55.50	49 ⁹⁵	
LC-10 Leather case for IC-505	□m 39.50	34 ⁹⁵	
IC-575A 25w 6 & 10m FM/SSB/CW Xcvr/ps	1399.00	1249	
CR-64 High stability oscillator crystal	63.00		
UT-36 Voice synthesizer	33.99		

2m TRANSCEIVERS

BU-1H Memory back-up for IC-25H Dmwfcve\$	43.00	4 ⁹⁵	
IC-27A 25w compact 2m FM Xcvr w/TTP mic	429.00	379 ⁹⁵	
IC-27H 45w compact 2m FM Xcvr w/TTP mic	459.00	399 ⁹⁵	
HM-16 Speaker/microphone	34.00		
UT-16/EX-388 Voice synthesizer; 27A/H	34.99		
IC-28A 25w 2m FM Xcvr w/reg mic □mwf	429.00	349 ⁹⁵	
IC-28A 25w 2m FM Xcvr w/TTP mic	459.00	399 ⁹⁵	
IC-28H 45w 2m FM Xcvr w/TTP mic	489.00	429 ⁹⁵	
HM-14 TTP microphone	55.50		
HM-16 Speaker/microphone	34.00		
UT-28 Digital code squelch	37.50		
UT-29 Tone squelch decoder	43.00		
IC-290H 25w 2m SSB/FM Xcvr, TTP mic D	639.00	549 ⁹⁵	
IC-271A 25w 2m FM/SSB Xcvr/mic Dmwfcve	859.00	699 ⁹⁵	
AG-20/EX-338 Internal preamp; 271A	64.00		

AG-20 Internal Preamplifier
only \$9⁹⁵ with the purchase of IC-271A

PS-25 Internal power supply for 271A	115.00	104 ⁹⁵	
EX-310 Voice synthesizer	46.00		
HM-12 Extra hand microphone; 271A	44.50		
HM-14 TTP microphone	55.50		
SM-6 Desk microphone; 271A	44.95		
SP-7 Small external speaker	49.00		
TS-32 CommSpec encoder/decoder	59.95		

ICOM - continued		Reg	Sale
UT-15 Encoder/decoder interface	14.00		
UT-15S UT-15 w/TS-32 installed	92.00		
IC-275A 25w 2m FM/SSB/CW Xcvr w/ps	1199.00	1049	
AG-25 Mast mounted GaSFET preamp	95.00		
CR-64 High stability oscillator crystal	63.00		
FL-83 CW filter	TBA		
UT-34 Tone squelch unit	49.50		
UT-36 Voice synthesizer	33.99		
IC-275H 100w 2m FM/SSB/CW Xcvr	1389.00	1229	
AG-25 Mast mounted GaSFET preamp	95.00		
CR-64 High stability oscillator crystal	63.00		
FL-83 CW filter	TBA		
PS-55 Power supply	199.00	179 ⁹⁵	
UT-34 Tone squelch unit	49.50		
UT-36 Voice synthesizer	33.99		
IC-3200A 25w 2m/440 FM Xcvr w/TTP mic	599.00	529 ⁹⁵	
UT-23 Voice synthesizer	34.99		
AH-32 2m/440 dual band antenna	37.00		
Larsen PO-K Roof mt, coax for AH-32	20.00		
Larsen PO-MM Magnet mt, coax; AH-32	22.00		
Larsen PO-TLM Trunk lip mt, coax; AH-32	22.00		
Icom AHB-32 Trunk lip mt, coax; AH-32	34.00		
IC-u2A .1/1.5w 2m FM HT/batt/wall cgr	299.00	269 ⁹⁵	
IC-u2AT .1/1.5w 2m FM HT/batt/cgr/TTP	329.00	289 ⁹⁵	
IC-u4AT .1/1.5w 440 FM HT/batt/cgr/TTP	369.00	329 ⁹⁵	
AD-10 Charger adapter for BC-35	12.99		
AD-11 Batt pack adapt; BP-3/4/5/8	10.00		
BC-16U Wall charger; BP-23/24	20.25		
BC-25U Extra wall charger; BP-21/22	16.25		
BC-50 Desk quick charger; all except BP-20	74.50		
BP-20 Alkaline battery case	15.25		
BP-21 Small 120ma 7.2v battery	33.99		
BP-22 Extra 270ma 8.4v battery	37.50		
BP-23 600ma 8.4v long life battery	47.00		
BP-24 600ma 10.8v 2.5w battery	49.00		
CP-1 Cig lighter charger	13.00		
DC-25 DC-DC converter	23.25		
HH-SS Handheld shoulder strap	16.95		
HM-9 Speaker/microphone	47.00		
HM-46L Slim-line speaker/mic	29.99		
HS-10 Headset	23.25		
HS-10SA VOX unit	23.25		
HS-10SB PTT switchbox	23.25		
LC-24 Vinyl case; IC-u2A/u4A w/BP-21	12.95		
LC-25 Vinyl case; IC-u2A/u4A w/BP-20	12.95		
LC-26 Vinyl case; u2A/u4A w/BP-22/23/DC-25	12.95		
LC-27 Vinyl case; IC-u2A/u4A w/BP-24	12.95		
LC-28 Vinyl case; IC-u2AT/u4AT w/BP-21	19.50		
LC-29 Vinyl case; IC-u2AT/u4AT w/BP-20	19.50		
LC-30 Case; IC-u2AT/u4AT w/BP-22/23/DC-25	19.50		
LC-31 Vinyl case; IC-u2AT/u4AT w/BP-24	19.50		
MB-20 Belt clip	3.95		
MB-22 Alligator belt/pocket clip	6.99		
UT-37 Tone squelch unit	42.50		
UT-38 TTP unit for IC-u2A/u4A	25.99		
UT-39 Tone encoder unit for IC-u2A/u4A	19.99		

IC-2A .15/1.5w 2m FM HT/batt/wall cgr	279.00	249 ⁹⁵	
IC-2AT .15/1.5w 2m FM HT/batt/wall cgr/TTP	299.00	259 ⁹⁵	
IC-02AT Deluxe 3w 2m FM HT/batt/cgr/TTPD	365.00	299 ⁹⁵	
IC-02AT/HP Dlx 5w 2m HT/BP-7/BC-16/TTP	399.00	339 ⁹⁵	
BC-16U Wall charger; BP-7/8 only	20.25		
BC-25U Extra wall charger; BP-3 only	16.25		
BC-35 Drop-in rapid charger, all batteries	74.50		
BP-2* 425ma 7.2v long life batt; all HTs	47.00		
BP-3 Extra 250ma 8.4v batt; all HTs	37.50		
BP-4 Alkaline battery case; all HTs	15.25		
BP-5* 425ma 10.8v high power batt; all HTs	58.50		
*BC-35 required to charge BP-2/5			
BP-7 425ma 13.2v 5w batt; deluxe HTs only	74.25		
BP-8 800ma 8.4v long life batt; all HTs	74.25		
CA-5 ½ wave telescoping 2m ant	18.95		
CM-12 Alkaline batt case (10 AAs); dlx HTs	24.95		
CP-1 Cig cgr; BP-3/7/8/DC cord; dlx HTs	13.00		
CP-10 Battery separation cable w/clip	22.50		
DC-1 DC operation module; std HTs	23.25		
EX-390 Bottom slide cap	5.50		
FA-2 Extra 2m flexible antenna	11.50		
HH-SS Handheld shoulder strap	16.95		
HM-9 Speaker/microphone; all HTs	47.00		
HM-46 Slim-line speaker/mic	29.99		
HS-10 Headset	23.25		
HS-10SA VOX unit (deluxe HTs only)	23.25		
HS-10SB PTT switchbox	23.25		

ICOM - continued		Reg	Sale
LC-2AT Leather case, TTP cut-out; std HTs	54.50		
LC-02AT Leather case; deluxe HTs w/BP-7/8	54.50		
LC-5 Vinyl case; standard HTs w/BP-5	20.50		
LC-7 Vinyl case; std HTs w/BP-2/3	20.50		
LC-11 Vinyl case; deluxe HTs w/BP-3	20.50		
LC-12 Vinyl case; deluxe HTs w/BP-5	20.50		
LC-14 Vinyl case for deluxe HTs w/BP-7/8	20.50		
MB-16D Mobile mtg bkt for all HT's	24.50		
ML-1 2m 2.3w/10w amp; std HT's only	110.00	99 ⁹⁵	
RB-1 Vinyl waterproof radio bag	34.95		
3A-TTN 16-button TTP front; 2A/3A/4A	45.00		
CommSpec SS-32M 32-tone encoder; std HTs	29.95		

220 MHz TRANSCEIVERS

IC-3AT .15/1.5w HT/batt/cgr/TTP	\$339.00	299 ⁹⁵	
IC-03AT Deluxe 2.5w 220 HT/batt/cgr/TTP	449.00	389 ⁹⁵	
CA-3 Extra 220 flexible antenna	11.00		

Note: IC-3AT uses same accessories as IC-2A/2AT
IC-03AT uses same accessories as IC-02AT

IC-37A 25w compact 220 FM Xcvr/TTP mic	499.00	439 ⁹⁵	
HM-16 Speaker/mic	34.00		
UT-16/EX-388 Voice synthesizer; 37A	34.99		
IC-38A 25w 220 MHz FM Xcvr/reg mic □mwf	459.00	389 ⁹⁵	
IC-38A 25w 220 MHz FM Xcvr w/TTP mic	489.00	429 ⁹⁵	
HM-14 TTP microphone	55.50		
HM-16 Speaker/mic	34.00		
UT-28 Digital code squelch	37.50		
UT-29 Tone squelch decoder	43.00		
IC-375A 25w 220 FM/SSB/CW Xcvr w/ps	1399.00	1249	
CR-64 High stability oscillator crystal	63.00		
UT-34 Tone squelch unit	49.50		
UT-36 Voice synthesizer	33.99		
RP-2210 25w 220 MHz FM repeater	1499.00	1329	

430/440 MHz TRANSCEIVERS

IC-4AT .15/1.5w HT/batt/cgr/TTP	\$339.00	299 ⁹⁵	
IC-04AT Deluxe 3w 440 FM HT/batt/cgr/TTP	449.00	389 ⁹⁵	
FA-3 Extra 440 flexible antenna	11.50		

Note: IC-4AT uses same accessories as IC-2A/2AT
IC-04AT uses same accessories as IC-02AT

IC-47A 25w compact 440 FM Xcvr, TTP mic	549.00	489 ⁹⁵	
HM-16 Speaker/mic	34.00		
UT-16/EX-388 Voice synthesizer; 47A	34.99		
IC-48A 25w 440-450 MHz FM Xcvr/reg mic □mw	459.00	389 ⁹⁵	
IC-48A 25w 440-450 MHz FM Xcvr w/TTP mic	489.00	429 ⁹⁵	
HM-14 TTP microphone	55.50		
HM-16 Speaker/mic	34.00		
UT-28 Digital code squelch	37.50		
UT-29 Tone squelch decoder	43.00		
IC-490A 10w 430-440 SSB/FM/CW Xcvr D	699.00	399 ⁹⁵	
IC-471A 25w 430-450 FM/SSB/CW Xcvr/mic Dmwf	979.00	749 ⁹⁵	
AG-1 Mast mounted 15db preamp	99.50		

AG-1 Mast Mounted Preamplifier
only \$9⁹⁵ with the purchase of IC-471A

PS-25 Internal power supply for 471A	115.00	104 ⁹⁵	
EX-310 Voice synthesizer	46.00		
HM-12 Extra hand microphone; 471A	44.50		
HM-14 TTP microphone	55.50		
SM-6 Desk microphone; 471A	44.95		
SP-7 Small external speaker	49.00		
TS-32 CommSpec encoder/decoder	59.95		
UT-15 Encoder/decoder interface	14.00		
UT-15S UT-15 w/TS-32 installed	92.00		
IC-475A 25w 430-450 FM/SSB/CW Xcvr w/ps	1399.00	1249	
AG-35 Mast mounted preamp	95.00		
CR-64 High stability oscillator crystal	63.00		
FL-83 CW filter	TBA		
UT-34 Tone squelch unit	49.50		
UT-36 Voice synthesizer	33.99		
IC-471H 75w 430-450 FM/SSB Xcvr/mic Dmwfcve	1339.00	989 ⁹⁵	
AG-35 Mast mounted preamp	95.00		

AG-35 Mast Mounted Preamplifier
only \$9⁹⁵ with the purchase of IC-471H

PS-35 Internal power supply	199.00	179 ⁹⁵	
PS-15 20A power supply	169.00	154 ⁹⁵	
EX-310 Voice synthesizer	46.00		
HM-12 Extra hand microphone; 471H	44.50		
HM-14 TTP microphone	55.50		
SM-6 Desk microphone; 471H	44.95		
SP-7 Small external speaker	49.00		
TS-32 CommSpec encoder/decoder	59.95		
UT-15 Encoder/decoder interface	14.00		
UT-15S UT-15 w/TS-32 installed	92.00		

ICOM - continued		Reg	Sale
IC-475H 75w 430-450 FM/SSB/CW Xcvr	1599.00	1429	
AG-35 Mast mounted preamp	95.00		
CR-64 High stability oscillator crystal	63.00		
PS-55 Power supply	199.00	179 ⁹⁵	
FL-83 CW filter	TBA		
UT-34 Tone squelch unit	49.50		
UT-36 Voice synthesizer	33.99		
RP-3010 10w 440 MHz FM repeater	1229.00	1089	

1.2 GHz TRANSCEIVERS

IC-12AT 1w 1.2GHz FM HT/batt/cgr/TTP	\$459.00	399 ⁹⁵	
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Note: IC-12AT uses same accessories as IC-02AT

IC-120 1w 1.2 GHz FM Xcvr	D 579.00	499 ⁹⁵	
IC-1200 10w 1.2 GHz FM Xcvr	699.00	629 ⁹⁵	
UT-28 Digital code squelch	37.50		
UT-29 Tone squelch decoder	43.00		
IC-1271A 10w 1.2 GHz SSB/FM/CW Xcvr	1229.00	1089	
AG-1200 Mast mounted preamp	105.00		
PS-25 Internal power supply	115.00	104 ⁹⁵	
EX-310 Voice synthesizer	46.00		
TV-1200 ATV interface unit	129.00	119 ⁹⁵	
UT-15S Encoder/decoder w/interface	92.00		
RP-1210 10w 99 ch synth 1.2 GHz FM rpt	1479.00	1299	

MULTI-BAND TRANSCEIVER

IC-900 Fiber optic basic controller unit	\$589.00	529 ⁹⁵	
CF-11 Cooling fan	56.00		
MB-21 Bracket for controller unit	12.99		
UX-19A 10w 10m unit	TBA		
UX-59A 10w 6m unit	339.00	309 ⁹⁵	
UX-29A 25w 2m unit	295.00	269 ⁹⁵	
UX-29H 45w 2m unit	339.00	309 ⁹⁵	
OPC-184 High power DC cord	19.95		
UX-39A 25w 220 unit	349.00	319 ⁹⁵	
UX-49A 25w 440 unit	339.00	309 ⁹⁵	
UX-129A 10w 1.2 GHz unit	TBA		

ACCESSORIES

24-PP 24-pin accessory plug	\$ 8.00		
AG-1 Mast mt 15 db preamp; 451A/45A/490A	99.50		
BC-10A Mem back-up; 551D/720A/730/740	9.50		
CC-1 Adapter cable; PS-20 to HF Xcvr	11.00		
CT-16 Satellite interface unit	97.50		
CT-17 CI-V level converter	97.50		
UX-14 CI-IV/CI-V converter for CT-17	72.50		
DM-10 Combination probe multimeter	58.95		
DM-20 Pocket-sized multimeter	32.95		
EX-309 Interface plug; 751/271/471A/H/R-71A	41.50		
EX-310 Voice synthesizer	46.00		
GC-4 World clock	Dw 99.95	59 ⁹⁵	
GC-5 World clock	91.95	89 ⁹⁵	
HM-5 Noise canx mobile mic, 4 pin	38.50		
HM-7 Amplified mobile mic, 8 pin	32.50		
HM-8 TTP mic; 22U/255A/260A, 8 pin	55.50		
HM-10 Scan mic; 255A/260A/290A/25A	44.50		
HM-11 Scan mic; 490A/25A/290A	44.50		
HM-12 Scan hand microphone	44.50		
HM-14 Scan/TTP mic; grn 25A/25H/45A	55.50		
HM-23 TTP mic; 27A/27H/37A/47A	55.50		
HP-2 Headphones	39.00		
HS-15 Goose neck mobile microphone	31.50		
HS-15SB PTT switchbox	23.50		
MB-23 Side mt carrying handle for base stn	7.50		
OPC-137 24-pin adapter cable; all base Xcvrs	16.00		
OPC-047 24-pin optional accessory cord	5.00		
PP-1 Speaker/patch	179.00	164 ⁹⁵	
PS-30 20A systems power supply w/6-pin cord	299.00	269 ⁹⁵	
OPC-045 Extra 6-pin cord (751A/745)	10.00		
OPC-052 2-pin cord	10.00		
OPC-053 4-pin cord	10.00		
OPC-054 6-pin cord (271A/471A)	10.00		
PS-45 Compact 8A ps; 27A/37A/120/25A	139.00	129 ⁹⁵	
SM-5 8-pin electret desk mic; 251A/451A	44.95		
SM-6 Electret desk mic; 751/745/271/471	44.95		
SM-8* 2 connector desk mic w/up/down scan	78.50		
*Cannot use SM-8 w/PP-1 speaker/patch			
SM-10 Compressor/graph equal 8-pin desk mic	136.25	124 ⁹⁵	
SP-3 External speaker	61.00		
SP-4 Remote speaker for portables	31.00		
SP-5 Mobile speaker	29.95		
SP-7 Small external speaker	49.00		
SP-8 Slimline external speaker	35.99		
SP-10 Slim-line ext spkr; 27A/H/37A/47A	35.99		

A-2 5w PEP synthesized aircraft handheld	499.00	449 ⁹⁵	
A-20 5w PEP synth aircraft handheld w/VOR	599.00	529 ⁹⁵	

JSC

52 OHM COAXIAL CABLE

JFA-08Q RG-8X (stranded, foam)	per ft.		
JFA-08Q	100 ft. Roll		
JFA-08Q	500 ft. Roll		
JFA-08Q	1,000 ft. Roll		
JPA-213 RG-213 (non-contaminating)	per ft.		
JPA-213	100 ft. Roll		
JPA-213	500 ft. Roll		

TWIN-LEAD CABLE

JUMBO-165 300 ohm, 1kw	per ft.		
JUMBO-165	100 ft. Roll		
JUMBO-165	500 ft. Roll		

LADDER LINE

IOL-450 Insulated, 450 ohm, 1kw	per ft.		
IOL-450	100 ft. Roll		
IOL-450	500 ft. Roll		
IOL-450	1,000 ft. Roll		
OL-450 Uninsulated, 450 ohm, 1kw	500 ft. Roll		
I-6010 H.D. plastic insulator for mtg OL-450			

ROTOR CABLE

JRR-420 4-wire; AR-22XL/U-110	per ft.		
JRR-420	100 ft. Roll		
JRR-420	500 ft. Roll		
JRR-420	1,000 ft. Roll		
JRR-520 5-wire; AR-40/BT-1A	per ft.		
JRR-520	100 ft. Roll		
JRR-520	500 ft. Roll		
JRR-520	1,000 ft. Roll		
JRR-823 8-wire; HD-73/CD-45/HAM-IV	per ft.		
JRR-823	100 ft. Roll		
JRR-823	500 ft. Roll		
JRR-823	1,000 ft. Roll		

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price only.

COAX ASSEMBLIES w/PL-259s

JFB-58-18PP 18" RG-58U	\$ 3.80		
JFB-58-3PP 3' RG-58U	3.92		
JFB-58-6PP 6' RG-58U	4.17		
JFB-58-12LP 12' RG-58U, PL-259 to lugs	4.29		
JFB-58-12PP 12' RG-58U	4.99		
JFB-58-20LP 20' RG-58U, PL-259 to lugs	5.29		
JFB-58-20PP 20' RG-58U	5.83		
JFB-58-50PP 50' RG-58U	8.55		
JFB-58-75PP 75' RG-58U	Dmwe 9.81		
JFB-58-100PP 100' RG-58U	12.99		
JFA-08Q-18PP 18" RG-8X	3.87		
JFA-08Q-3PP 3' RG-8X	4.10		
JFA-08Q-6PP 6' RG-8X	4.59		
JFA-08Q-12LP 12' RG-8X, PL-259 to lugs	4.99		
JFA-08Q-12PP 12' RG-8X	5.72		
JFA-08Q-20LP 20' RG-8X, PL-259 to lugs	6.32		
JFA-08Q-20PP 20' RG-8X	6.99		
JFA-08Q-50PP 50' RG-8X	11.70		
JFA-08Q-75PP 75' RG-8X	Dmfe 13.62		
JFA-08Q-100PP 100' RG-8X	19.29		
JFB-08-18PP 18" RG-8U	3.59		
JFB-08-3PP 3' RG-8U	3.93		
JFB-08-20PP 20' RG-8U	8.99		
JFB-08-50PP 50' RG-8U	17.82		
JFB-08-75PP 75' RG-8U	Dw 21.17		
JFB-08-100PP 100' RG-8U	31.77		
JFA-213-15NN 15' RG-213 w/N connectors	13.50		
JFA-08-50NN 50' RG-8 w/N connectors	29.29		
JFA-213-50NN 50' RG-213 w/N connectors	29.29		

Also see Belden for cable

KDK (See Encomm)

KLM ANTENNAS

160V 160, 80, or 40m vertical, 24' high	\$232.00	214 ⁹⁵	
80M-1 80m rotatable dipole, 90' long	*T 763.00	699 ⁹⁵	
80M-1R 80m rotatable dipole w/relays	*T1071.00	969 ⁹⁵	
80M-2 80m 2el, 36' boom, 4db	*T2513.00	2149	
80M-2R 80m 2el beam w/relays	*T3108.00	2695	
80M-3 80m 3el, 60' boom, 7db	*T3731.00	3199	
80M-3R 80m 3el beam w/relays	*T4480.00	3849	
SSV80-40-15 80/40/15m vert, 65' high	*T 746.00	649 ⁹⁵	
40M-1 40m rotatable dipole, 46.5' long	T 202.00	186 ⁹⁵	
7.2/10-30-7LPA 7,10-30MHz 8el, 42'bm	*T1012.00	869 ⁹⁵	
40M-2 40m 2el, 16' boom, 4.9db	*T 493.00	429 ⁹⁵	

Reg Sale

KLM - continued

40M-3 40m 3el, 32' boom, 6.5db	*T 703.00	599 ⁹⁵	
40M-4 40m 4el, 42' boom, 7.2db	*T 935.00	799 ⁹⁵	
40-10V 40-10m vertical, 26.5' high	*Tm 287.00	249 ⁹⁵	
10-30-7LPA 10-30MHz 7el LP, 30'bm, 7db	*T 750.00	649 ⁹⁵	
SK-8 Conversion kit for adding 7.2-1	*T 218.00	199 ⁹⁵	
KT-34A 20-15-10m, 4el, 16' boom, 7db	484.00	439 ⁹⁵	
KT-34X Upgrade Kit - KT-34A to XA	T 258.00	239 ⁹⁵	
KT-34XA 20-15-10m, 6el, 32' boom, 9db	T 697.00	629 ⁹⁵	

20M-4 20m 4el 21'boom 7.7db	*T 417.00	359 ⁹⁵	
20M-5 20m 5el 42'boom 9.7db	*T 647.00	569 ⁹⁵	
20M-6 20m 6el 57' boom 11db	*T 931.00	799 ⁹⁵	
20-30-6LPA 20-30MHz 6el LP, 19'bm, 7db	*T 333.00	289 ⁹⁵	
15M-4 15m 4el 14' boom 7.7db	*T 221.00	199 ⁹⁵	
15M-6 15m 6el 36 10.5db	*T 524.00	449 ⁹⁵	
15M-6LD As 15M-6, light duty	*T 393.00	349 ⁹⁵	
10M-4 10m 4el 10' boom 7.7db	* 203.00	179 ⁹⁵	
10M-6 10m 6el 27.5' boom 11db	*T 321.00	279 ⁹⁵	

Note: All KLM antennas come supplied with a KLM balun, which is included in the price.

JV-10 10m 26' vertical antenna	102.00	94 ⁹⁵	
6M-5/50-52-5 6m 5el, 11.75' boom, 9.7db	202.00	186 ⁹⁵	
6M-7LB/50-51-7LB 6m 7el 25.75'bm 11.5db	T 293.00	272 ⁹⁵	
6M-7LD/50-7LD 6m 7 el, 20' boom, 10.5db	230.00	212 ⁹⁵	
JV-6 6m 15' vertical antenna, 3db	109.00	99 ⁹⁵	
2M-4X/144-148-4X 2m 4el rear mt 4.2'bm 8.5db	62.00	56 ⁹⁵	
2M-8/144-148-8 2m 8el 7.25' boom 10.3db	98.00	89 ⁹⁵	
2M-11X 2m 11el, 15.33' boom, 12.5db	84.00	79 ⁹⁵	
2M-13LB/144-148-13LB 2m 13el 21.5'bm 13.3db	95.00	89 ⁹⁵	
2M-14C/143-150-14C 2m circ 14el 12.9'bm 11db	164.00	152 ⁹⁵	
2M-16LBX 2m 16el, 28' boom, 14.5db	195.00	179 ⁹⁵	
2M-22C 2m circular 22el, 19' boom, 13db	213.00	196 ⁹⁵	
CJ-2M 2m 5' closed J antenna, 1.8db	45.00		
JV-2 2m 5' vertical antenna, 3db	112.00	104 ⁹⁵	
JV-2X 2m 11' vertical antenna, 5db	153.00	142 ⁹⁵	
220-7/219-226-7 220 7el 4.75' boom 8.8db	76.00	69 ⁹⁵	
220-14X 220 14el 14.5' boom, 13.5db	109.00	102 ⁹⁵	
220-22LBX 220 22el, 29.75' boom, 15.6db	137.00	127 ⁹⁵	
CJ-220 220 40' closed J antenna, 1.8db	40.00		
JV-220X 220 7' vertical antenna, 5db	141.00	129 ⁹⁵	
432-20LBX 432 20el, 12.33' boom, 15.3db	146.00	134 ⁹⁵	
432-30LBX 432 30el, 22' boom, 17.3db	169.00	156 ⁹⁵	
435-18C/420-450-18C 432 circ 18el 7'bm 12db	214.00	199 ⁹⁵	
435-40CX 432 circ 40el, 14.5'bm, 15.2db	251.00	232 ⁹⁵	
440-6/420-470-6 440 6el, 2' boom, 8db Dwfc	70.00	59 ⁹⁵	
440-6X 440 6el, 2.33' boom, 8.9db	55.00	49 ⁹⁵	
440-10X 440 10el, 5.33' boom, 11.2db	65.00		
440-14/420-470-14 440 14el 4.75'bm 11.5db	Doe 87.00	69 ⁹⁵	
440-27/420-450-27 440 27el 12' boom 14db	120.00	109 ⁹⁵	
CJ-440 440 19' closed J antenna, 1.8db	35.00		
JV-440X 440 3' vertical antenna, 5db	122.00	112 ⁹⁵	
1.2-44LBX 1.2 GHz 44el 12'bm 18.2db	154.00	142 ⁹⁵	
APS-1 Antenna polarity switcher w/ps	60.00	49 ⁹⁵	
Optional heavy duty 1A power supply		12 ⁹⁵	
CS-2 Extra 432 ant circularity switch	134.00	124 ⁹⁵	

STACKING FRAMEWORKS (Frameworks only)

2Mx2/144x2 For 2 - 2m antennas	\$158.00	146 ⁹⁵	
2Mx4 For 4 - 2m antennas	*T 354.00	328 ⁹⁵	
2Mx2C (fg) For 2 - 2m circ ants	* 158.00	146 ⁹⁵	
220x2 For 2 - 220 MHz antennas	80.00	74 ⁹⁵	
220x4 For 4 - 220 MHz antennas	*T 266.00	246 ⁹⁵	
432x2C (fg) For 2 - 432 circ ants	64.00	59 ⁹⁵	
432x4C (fg) For 4 - 432 circ ants	99.00	92 ⁹⁵	
5' 1 1/2" OD fiberglass mast		32 ⁹⁵	
7 1/2' 1 1/2" OD fiberglass mast		39 ⁹⁵	

COUPLERS/POWER DIVIDERS

2M-2N/140-150-2N	2m - for 2 ants	.....\$ 70.00	64 ⁹⁵
2M-4N/140-150-4N	2m - for 4 ants	..... 81.00	74 ⁹⁵
220-2N/210-230-2N	220 MHz - for 2 ants	..... 55.00	49 ⁹⁵
220-4N/210-230-4N	220 MHz - for 4 ants	..... 81.00	76 ⁹⁵
440-2N/400-470-2N	432 MHz - for 2 ants	..... 74.00	69 ⁹⁵
440-4N/400-470-4N	432 MHz - for 4 ants	..... 81.00	76 ⁹⁵
1 2-2N 1 2 GHz -	for 2 antennas	..... 74.00	68 ⁹⁵

KLM - Continued	Reg	Sale
219-226-50 220 MHz 1:1 balun Dmfce	33.95	14 ⁹⁵
220-50 220 MHz 1:1 balun	50.00	46 ⁹⁵
220-50N/219-226-50N As abv, but type N	53.00	49 ⁹⁵
440-50N/420-470-50N 432 MHz 1:1 type N balun	62.00	57 ⁹⁵

*These antennas are drop-shipped (shipped direct to you from the KLM factory). On these factory "drop-shippments" we prefer payment in full with order, however, we will accept your Visa or Mastercard with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Morgan Hill, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order antennas.

KANTRONICS

Challenger RTTY/ASCII computer interface □	\$ 99.95	79 ⁹⁵
12V adapter	12.95	
Interface RTTY/ASCII/CW interface	D 109.95	99 ⁹⁵
9V adapter	12.95	
Interface II RTTY/ASCII/CW computer interface □	199.95	
12V adapter	12.95	
Hamsoft software for TI-99/4A	Dv 99.95	79 ⁹⁵
Hamsoft software for Apple	□ 29.95	
Hamsoft software for Atari	□ 49.95	
Hamsoft software for VIC-20	□ 49.95	
Hamsoft/AMTOR software; Atari	□ 79.95	69 ⁹⁵
Hamsoft/AMTOR software; Commodore 64	□ 79.95	69 ⁹⁵
Hamsoft/AMTOR software for VIC-20	□ 79.95	69 ⁹⁵
Hamtext software for Apple	□ 99.95	89 ⁹⁵
Hamtext software for Atari (800XL OK)	□ 99.95	89 ⁹⁵
Hamtext software for Commodore 64	□ 99.95	89 ⁹⁵
Hamtext software for VIC-20	□ 99.95	89 ⁹⁵
AMTORSOFT/Hamtext software for Apple	□ 139.95	124 ⁹⁵
AMTORSOFT software for VIC-20 Dmfve	89.95	29 ⁹⁵
AMTORSOFT software for C-64 Dmfe	89.95	59 ⁹⁵
Radiotap SWL interface/VIC-20 software Dm	199.95	69 ⁹⁵
Radiotap SWL interface w/C-64 software Dm	199.95	99 ⁹⁵
UTU Universal terminal unit	189.95	179 ⁹⁵
UTU-XT/P Dlx universal term unit/packet w/ps	289.95	269 ⁹⁵
UTU-term software for IBM-PC/IBM Dmv	19.95	14 ⁹⁵
UTU-term software for CPM/Kay-Pro Dmv	19.95	14 ⁹⁵
Pacterm/UTU-term (disk) for IBM (w/XT-term)	29.95	
Pacterm/UTU-term (disk) for C-64	19.95	
Pacterm/UTU-term (cart) for C-64 D	24.95	19 ⁹⁵
Pacterm/UTU-term (disk); TRS-80/III/IV/IVP	19.95	
Kanterm terminal program for C-64/128	29.95	
12V adapter for UTU	12.95	
KPC-2 Packet Communicator II Controller/ps	169.00	159 ⁹⁵
KAM All Mode Communicator w/ps	319.00	289 ⁹⁵
KPC-4 Dual Port VHF Packet Communicator	329.00	299 ⁹⁵
KM-2400 2400 BPS add-on board; KAM/KPC-4	69.95	
KPC-2400 High speed packet unit w/ps ...	329.00	299 ⁹⁵
2400 TNC Modem 2400 baud modem ... □	149.00	
Pacterm program (disk) for VIC-20	19.95	
Pacterm/UTU-term (disk) for C-64	19.95	
Pacterm/UTU-term (disk); TRS-80/III/IV/IVP	19.95	
Pacterm program (cart) for VIC-20 D	24.95	19 ⁹⁵
Pacterm/UTU-term (cart) for C-64 D	24.95	19 ⁹⁵
Pacterm/UTU-term (disk) for IBM (w/XT-term)	29.95	
Kanterm-C64/128 terminal program; C-64/128	29.95	
Kanterm-PC Terminal program for IBM	39.95	

KENPRO (See Encomm)

KENWOOD

TS-940S 9-band Xcvr/.15-30 MHz Rcvr ...	2119.95	1799
AT-940 Automatic antenna tuner	229.95	209 ⁹⁵
TS-940S w/AT-940 auto tuner installed ...	2349.95	1999
SP-940 External spkr w/audio filters ...	99.95	
YK-88C-1 500 Hz CW filter (1st IF)	89.95	
YK-88A-1 6 KHz AM filter	79.95	
YG-455C-1 500 Hz CW filter (2nd IF) ...	129.95	124 ⁹⁵
YG-455CN-1 250 Hz CW filter (2nd IF) ...	149.95	139 ⁹⁵
VS-1 Voice synthesizer	54.95	
MC-43S 8-pin hand mic w/up-down	39.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin elect desk mic	129.95	124 ⁹⁵
IF-10B Computer interface	59.95	
IF-232C Level translator	89.95	
AC-10 AC adapter for IF-232C	19.95	
SO-1 Commercial stability TCXO*	209.95	
*Requires dealer installation Labor	50.00	
TS-930S 9-band Xcvr/.15-30 MHz Rcvr D	1649.95	1469
AT-930 Automatic antenna tuner	229.95	209 ⁹⁵

KENWOOD - continued

TS-930S w/AT-930 auto ant tuner installed	1999.95	1699
SP-930 External spkr w/audio filters ...	99.95	
YK-88C-1 500 Hz CW filter (1st IF)	89.95	
YK-88A-1 6 KHz AM filter	79.95	
YG-455C-1 500 Hz CW filter (2nd IF) ...	129.95	124 ⁹⁵
YG-455CN-1 250 Hz CW filter (2nd IF) ...	149.95	139 ⁹⁵
MC-43S 8-pin hand mic w/up-down	39.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin elect desk mic	129.95	124 ⁹⁵
SO-1 Commercial stability TCXO*	209.95	
*Requires dealer installation Labor	50.00	
TS-440S 9-band Xcvr/.15-30 MHz Rcvr/mic	1099.95	949 ⁹⁵
AT-440 Automatic 80-10m antenna tuner	199.95	179 ⁹⁵
TS-440S w/AT-440 auto ant tuner installed	1299.95	1099
PS-50 Heavy duty power supply	224.95	204 ⁹⁵
PS-430 Compact AC power supply	189.95	174 ⁹⁵
PS-30 20A power supply	189.95	174 ⁹⁵
SP-430 External speaker	59.95	
YK-88C 500 Hz CW filter	79.95	
YK-88CN 270 Hz CW filter	79.95	
YK-88S 2.4 KHz SSB for dual filtering ..	79.95	
YK-88SN 1.8 KHz SSB filter	79.95	
AT-250 External 200w 9-band auto tuner	399.95	359 ⁹⁵
AT-230 9-band tuner/SWR, pwr meter	249.95	229 ⁹⁵
AT-130 8-band compact antenna tuner	199.95	179 ⁹⁵
MB-430 Mobile mounting bracket	29.95	
MC-43S Extra 8-pin hand mic w/up-down	39.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin elect desk mic	129.95	124 ⁹⁵
IC-10 IC kit for computer control	29.95	
IF-232C Level translator	89.95	
AC-10 AC adapter for IF-232C	19.95	
TU-8 CTCSS tone unit	36.95	
VS-1 Voice synthesizer	54.95	
TS-430S 9-band Xcvr/.15-30 MHz Rcvr +	899.95	749 ⁹⁵
PS-50 Heavy duty power supply	224.95	204 ⁹⁵
PS-430 Compact AC power supply	189.95	174 ⁹⁵
PS-30 20A power supply	189.95	174 ⁹⁵
SP-430 External speaker	59.95	
YK-88A AM filter	69.95	
YK-88C 500 Hz CW filter	79.95	
YK-88CN 270 Hz CW filter	79.95	
YK-88SN 1.8 KHz SSB filter	79.95	
FM-430 FM Unit...\$49 ⁹⁵ • purchased with TS-430S	39.95	39 ⁹⁵
AT-250 200w 9-band automatic ant tuner	399.95	359 ⁹⁵
AT-230 9-band tuner/SWR, pwr meter	249.95	229 ⁹⁵
AT-130 8-band compact antenna tuner	199.95	179 ⁹⁵
MB-430 Mobile mounting bracket	29.95	
MC-43S 8-pin hand mic w/up-down	39.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin elect desk mic	129.95	124 ⁹⁵
TS-830S 9-band digital Xcvr	1199.95	1029
SP-230 External spkr w/audio filters ...	89.95	
VFO-230 Digital remote VFO	D 359.95	329 ⁹⁵
VFO-240 Analog remote VFO	219.95	199 ⁹⁵
YK-88C 500 Hz CW filter (1st IF)	79.95	
YK-88CN 270 Hz CW filter (1st IF)	79.95	
YG-455C 500 Hz CW filter (2nd IF)	119.95	114 ⁹⁵
YG-455CN 250 Hz CW filter (2nd IF) ...	139.95	129 ⁹⁵
AT-230 9-band tuner/SWR, pwr meter	249.95	229 ⁹⁵
MC-30S 4-pin lo-Z hand mic	39.95	
MC-35S 4-pin hi-Z hand mic	39.95	
MC-50 4-pin hi/lo-Z desk mic	69.95	
TS-530SP 9-band digital Xcvr	D 899.95	789 ⁹⁵
SP-230 External spkr w/audio filters ...	89.95	
VFO-230 Digital remote VFO	D 359.95	329 ⁹⁵
VFO-240 Analog remote VFO	219.95	199 ⁹⁵
YK-88C 500 Hz CW filter	79.95	
YK-88CN 270 Hz CW filter	79.95	
YK-88SN 1.8 KHz SSB filter	79.95	
AT-230 9-band tuner/SWR, pwr meter	249.95	229 ⁹⁵
MC-30S 4-pin lo-Z hand mic	39.95	
MC-35S 4-pin hi-Z hand mic	39.95	
MC-50 4-pin hi/lo-Z desk mic	69.95	
VFO-120 Remote VFO; TS-130SE/830S/530SP Dmv	164.95	139 ⁹⁵
SP-120 External spkr for TS-130SE/660Dm	47.95	
TS-670 6/10/15/40m Xcvr	D 799.95	699 ⁹⁵
PS-20 4.5A power supply	89.95	
KPS-7A 6A power supply	79.95	
PS-430 Compact AC power supply	189.95	174 ⁹⁵
SP-430 External speaker	59.95	

KENWOOD - continued

FM-430 FM unit	49.95	
GC-10 General coverage receive unit D	59.95	
MC-43S 8-pin hand mic w/up-down	39.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin elect desk mic	129.95	124 ⁹⁵
VOX-4 VOX/speech processor unit	64.95	
YK-88A AM filter	69.95	
YK-88C 500 Hz CW filter	79.95	
YK-88CN 270 Hz CW filter	79.95	
VS-1 Voice synthesizer	54.95	
MB-430 Mobile mounting bracket	29.95	
SM-220 Monitor scope	449.95	399 ⁹⁵
BS-8 Pan kit; TS-940S/830S/530SP	99.95	
TL-922A 2kw PEP linear (3-500Zs)	A1599.95	1389
R-5000 100 KHz-30 MHz digital receiver	949.95	769 ⁹⁵
SP-430 External speaker	59.95	
YK-88A-1 AM filter	79.95	
YK-88C 500 Hz CW filter	79.95	
YK-88CN 270 Hz CW filter	79.95	
YK-88SN 1.8 KHz SSB filter	79.95	
MB-430 Mobile mounting bracket	29.95	
VC-20 108-174 MHz VHF converter	199.95	179 ⁹⁵
IC-10 IC kit for computer control	29.95	
IF-232C Level translator	89.95	
AC-10 AC adapter for IF-232C	19.95	
DCK-2 DC cable kit w/cig plug	10.95	
VS-1 Voice synthesizer	54.95	
R-2000 150 KHz-30 MHz digital receiver	699.95	569 ⁹⁵
YG-455C 500 Hz CW filter	119.95	114 ⁹⁵
YG-455CN 250 Hz CW filter	139.95	129 ⁹⁵
VC-10 118-174 MHz VHF converter	189.95	174 ⁹⁵
DCK-1 DC cable kit; R-2000/1000/600	7.95	
AL-2 2kw PEP 1.8-1500MHz surge protector Dm	34.95	29 ⁹⁵
HS-4 Headphones	Dmv 24.95	
HS-5 Deluxe headphones	59.95	
HS-6 Lightweight headphones	39.95	
HS-7 Ultra lightweight micro-headphones	25.95	
LF-30A 1kw PEP low pass filter	39.95	
MA-5 5-band 200w PEP HF mobile antenna	129.95	119 ⁹⁵
VP-1 Hvy duty chrome spg, bpr mt for MA-5	49.95	
MC-30S 4-pin lo-Z dynamic mobile mic ...	39.95	
MC-35S 4-pin hi-Z dynamic mobile mic ...	39.95	
MC-42S 8-pin hand mic w/up-down Dv	33.95	
MC-43S 8-pin hand mic w/up-down switch	39.95	
MC-50 4-pin hi/lo-Z desk microphone	69.95	
MC-55 (6P) 6-pin mob up-dwn boom mic/timer	59.95	
MC-55 (8P) 8-pin mob up-dwn boom mic/timer	59.95	
MC-60A 8-pin amp desk mic w/up-down	119.95	114 ⁹⁵
MC-80 8-pin electret desk mic w/up-down	74.95	
MC-85 Multi-function 8-pin electret desk mic	129.95	124 ⁹⁵
MJ-46 4-pin mic to 6-pin Xcvr adaptor ...	12.95	
MJ-48 4-pin mic to 8-pin Xcvr adaptor ...	12.95	
MJ-64 6-pin mic to 4-pin Xcvr adaptor ...	12.95	
MJ-68 6-pin mic to 8-pin Xcvr adaptor ...	12.95	
MJ-84 8-pin mic to 4-pin Xcvr adaptor ...	12.95	
MJ-86 8-pin mic to 6-pin Xcvr adaptor ...	12.95	
PG-4A Adapt cord; MC-60A to 4-pin Xcvr	18.95	
PG-4B Adapt cord; MC-60A to 6-pin Xcvr	18.95	
PG-4C Adapt cord; MC-60A to 8-pin Xcvr	18.95	
PG-4D Adapt cord; MC-85 to 4-pin Xcvr ...	18.95	
PG-4E Adapt cord; MC-85 to 6-pin Xcvr ...	18.95	
PG-4F Adapt cord; MC-85 to 8-pin Xcvr ...	18.95	
PC-1A 8-pin phone patch	99.95	
PG-3A 15A DC line noise filter	Dm 12.95	
PG-3B 15A DC line noise filter	18.95	
RD-20 DC-500 MHz 20w/50w dummy load	26.95	
SP-40 Compact mobile speaker	35.95	
SP-50B High quality external mobile speaker	35.95	
SW-100A 1.8-150MHz SWR/pwr/voltmeter	64.95	
SW-100B 144-450 MHz SWR/pwr/voltmeter	64.95	
SW-200A 1.8-150MHz SWR/PEP power ...	119.95	112 ⁹⁵
SW-200B 140-450MHz SWR/PEP power ...	119.95	112 ⁹⁵
SW-2000 1.8-54MHz 1kw SWR/PEP pwr meter	139.95	129 ⁹⁵
SWC-1 1.8-150MHz 100w coupler	41.95	
SWC-2 140-450MHz 100w coupler	41.95	
SWC-3 Extra 1.8-54MHz 1kw coupler ...	41.95	
SWT-1 2m 100w antenna tuner	44.95	
SWT-2 440 MHz 100w antenna tuner	44.95	
TM-211A 25w compact 2m FM/spkr/TTP/DCS D	399.95	349 ⁹⁵
CD-10 Call sign display	109.95	99 ⁹⁵
AC-10 AC adapter for CD-10	19.95	
TU-3A Programmable encoder	44.95	

KENWOOD - continued

Reg	Sale	
		TU-79 Programmable encoder; 7930/7950 49.95
		TM-2530A 25w 2m FM Xcvr w/TTP 459.95 399 ⁹⁵
		TM-2550A 45w 2m FM Xcvr w/TTP 489.95 429 ⁹⁵
		TM-2570A 70w 2m FM Xcvr w/TTP 589.95 499 ⁹⁵
		TM-3530A 25w 220 FM Xcvr w/TTP 479.95 419 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		MC-48B TTP mic w/up-down 64.95
		MU-1 DCL modem unit 44.95
		TU-7 Programmable encoder 36.95
		VS-1 Voice synthesizer 54.95
		TR-9130/TTP 2m Xcvr/up-dwn TTP mic Dwf 549.95 489 ⁹⁵
		TR-751A 25w 2m SSB/FM Xcvr w/TTP mic 629.95 549 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		MU-1 DCL modem unit 44.95
		TU-7 Programmable encoder 36.95
		VS-1 Voice synthesizer 54.95
		TS-711A 25w 2m SSB/FM Xcvr/ps/DCS 999.95 869 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		IF-10A Computer interface 59.95
		IF-232C Level translator 89.95
		AC-10 AC adapter for IF-232C 19.95
		MB-430 Mobile mounting bracket 29.95
		MC-43S 8-pin hand mic w/up-down 39.95
		MC-48B Up-down 8-pin TTP microphone 64.95
		MC-60A 8-pin amp desk mic w/up-down 119.95 114 ⁹⁵
		MC-80 8-pin electret desk mic w/up-down 74.95
		MC-85 Multi-function 8-pin elect desk mic 129.95 124 ⁹⁵
		PG-2U DC cable 10.95
		SP-430 External speaker 59.95
		TU-5 Programmable encoder 44.95
		VS-1 Voice synthesizer 54.95
		TW-4000A 25w 2m/440 MHz FM w/TTP micD 599.95 499 ⁹⁵

TU-4C Programmable Encoder \$100 with purchase of TW-4000A

		TU-4C Programmable encoder 59.95
		VS-1 Voice synthesizer 54.95
		TW-4100A 45/35w 2m/440 FM w/TTP mic 669.95 589 ⁹⁵
		MU-1 DCL modem unit 44.95
		TU-7 Programmable encoder 36.95
		VS-2 Voice synthesizer 54.95
		MA-4000 3db 2m/5.5db 440 ant, duplexer 59.95
		Larsen PO-K Roof mt, coax; MA-4000 20.00
		Larsen PO-MM Magnet mt, coax; MA-4000 22.00
		Larsen PO-TLM Trunk lid mt, coax; MA-4000 22.00
		TM-221A 45w 2m FM Xcvr w/TTP mic 419.95 369 ⁹⁵
		TM-321A 25w 220 FM Xcvr w/TTP mic 439.95 389 ⁹⁵
		TM-421A 35w 440 MHz FM w/TTP mic 439.95 389 ⁹⁵
		RC-10 Remote controller handset 219.95 199 ⁹⁵
		PG-4G Extra control cable for full duplex 18.95
		TSU-5 Programmable CTCSS decoder 39.95
		TM-401B 25w compact 440FM/spkr/TTP micD 399.95 359 ⁹⁵
		FC-10 Frequency controller 59.95
		TU-3 Programmable encoder 44.95
		TM-411A 25w 440 FM/spkr/TTP/DCS Dmfve 449.95 299 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		TU-3A Programmable encoder 44.95
		TR-9500 10w 430-440 SSB/CW/FM Xcvr D 649.95 569 ⁹⁵
		TR-851A 25w 430-440 SSB/FM Xcvr w/TTP mic 729.95 639 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		MU-1 DCL modem unit 44.95
		TU-7 Programmable encoder 36.95
		VS-1 Voice synthesizer 54.95
		TS-811A 25w 430-450 SSB/FM Xcvr/ps/DCS 1199.95 1049 ⁹⁵
		CD-10 Call sign display 109.95 99 ⁹⁵
		AC-10 AC adapter for CD-10 19.95
		IF-10A Computer interface 59.95
		IF-232C Level translator 89.95
		AC-10 AC adapter for IF-232C 19.95
		MB-430 Mobile mounting bracket 29.95
		MC-43S 8-pin hand mic w/up-down 39.95
		MC-48B Up-down 8-pin TTP microphone 64.95
		MC-60A 8-pin amp desk mic w/up-down 119.95 114 ⁹⁵
		MC-80 8-pin electret desk mic w/up-down 74.95
		MC-85 Multi-function 8-pin elect desk mic 129.95 124 ⁹⁵
		PG-2U DC cable 10.95
		SP-430 External speaker 59.95

KENWOOD - continued

Reg	Sale	
		TU-5 Programmable encoder 44.95
		VS-1 Voice synthesizer 54.95
		TR-50 1w 1.2GHz FM portable Xcvr/TTP mic 599.95 529 ⁹⁵
		PB-16 Nicad battery 41.95
		SC-10 Soft case 39.95
		MB-3 Mobile mounting bracket 25.95
		TU-6 Programmable encoder 36.95
		VB-50 10w amplifier for TR-50 349.95 309 ⁹⁵
		SWC-4 1.2GHz coupler; SW-200A/B, SW-2000 49.95
		PS-20 4.5A power supply for TR-9000 89.95
		KPS-7A 6A power supply 79.95
		KPS-12 10A power supply 94.95 89 ⁹⁵
		PS-30 20A power supply 189.95 174 ⁹⁵
		PS-430 Compact power supply 189.95 174 ⁹⁵
		PS-50 Hvy duty ps for TM-2570A 224.95 204 ⁹⁵
		MC-46 Up-dn 6-pin TTP microphone 64.95
		MC-48B Up-down 8-pin TTP microphone 64.95
		TK-1/BC-1 7730/7800/50/9000/9130 mem ps 20.00
		TH-205AT 2.5w 2m FM HT/batt/cgr/TTP/PG-2V 279.95 249 ⁹⁵
		TH-215A 2.5w 2m FM HT/batt/cgr/TTP/PG-2V 359.95 319 ⁹⁵
		TH-315A 2.5w 220 FM HT/batt/cgr/TTP/PG-2V 379.95 334 ⁹⁵
		TH-415A 2.5w 440 FM HT/batt/cgr/TTP/PG-2V 379.95 334 ⁹⁵

Accessories for TH-205AT/215A/415A

		BC-7 Desk rapid charger for PB-1/2/3/4\$ 99.95 94 ⁹⁵
		BC-8 Desk charger for PB-1/2/3/4 44.95
		BH-5 Swivel mount 24.95
		BT-5 Alkaline battery case 15.95
		LH-4 Leather case for PB-2/3/BT-5 46.95
		LH-5 Leather case for PB-1/4 49.95
		MB-4 Mobile bracket 12.95
		PB-1 800ma 12v (5w) battery 76.95
		PB-2 Extra 500ma 8.4v (2.5w) battery 44.95
		PB-3 800ma 7.2v (1.5w) battery 54.95
		PB-4 1600ma 7.2v (1.5w) battery 79.95
		PG-2V Extra DC cable 6.95
		PG-3D Cig cord w/filter 21.95
		RA-3 2m BNC 3/4 wave telescopic antenna 16.95
		RA-5 2m 1/4-wv/440 3/4-wv BNC telescopic ant 20.95
		RA-8B 2m BNC stubby duck 14.95
		RA-9B 220 BNC stubby duck 14.95
		RA-10B 440 BNC stubby duck 14.95
		SC-12 Soft case for PB-2/3/BT-5 26.95
		SC-13 Soft case for PB-1/4 26.95
		SMC-30 Speaker/microphone 42.95
		TSU-3 Encoder/decoder for TH-205AT 39.95
		TSU-4 Decoder for TH-215A/415A 39.95
		VB-2530 2m 25w amp; TH-205AT/215A 119.95 112 ⁹⁵
		TH-21A .15/1w 2m FM HT/batt/cgr 239.95 219 ⁹⁵
		TH-21BT .15/1w 2m FM HT/batt/cgr/TTP 279.95 249 ⁹⁵
		TH-31A .15/1w 220 FM HT/batt/cgr D 229.95 209 ⁹⁵
		TH-31BT .15/1w 220 FM HT/batt/cgr/TTP 299.95 264 ⁹⁵
		TH-41A .15/1w 440 FM HT/batt/cgr 249.95 229 ⁹⁵
		TH-41AT .15/1w 440 FM HT/batt/cgr/TTP Dmfve 259.95 199 ⁹⁵

PB-21 extra Battery Pack FREE with the purchase of a TH-41AT

SAVE \$32 on TU-6 Tone Board !
Only \$49⁹⁵ when purchased with TH-41AT

		TH-41BT .15/1w 440 FM HT/batt/cgr/TTP 299.95 264 ⁹⁵
		TR-3600A .3/25w 440 HT/batt/cgr/TTP/DCS Dmfve 369.95 299 ⁹⁵
		Accessories; TH-A/B/2600A/3600A/2500/3500
		AJ-3 Thread-loc to BNC adapter; TH-A/B \$ 8.95
		AX-2 Shoulder strap w/ant base; 2600A/3600A 29.95
		BC-2 Wall charger for PB-21H 16.95
		BC-6 Two-pack quick charger for PB-21/21H 99.95 94 ⁹⁵
		BH-2A Belt hook; 2600A/3600A/2500/3500D 5.95
		BH-3 Belt hook for TH-A/B series 4.95
		BT-1 Alkaline battery case; TR-2500/3500 14.95
		BT-2 Alkaline battery case for TH-A/B 12.95
		BT-3 Alkaline battery case; 2600A/3600A 14.95
		CD-10 Call sign display; 2600A/3600A 109.95 99 ⁹⁵
		DC-21 DC adapter for TH-A/B series 26.95
		DC-25 DC adapter; TR-2500/3500 29.95
		DC-26 DC adapter for TR-2600A/3600A 29.95
		EB-2 External 'C' alkaline batt case; TH-A/B 19.95
		EB-3 External 'C' alk batt case; 2600A/3600A 19.95
		EP-1 Earphone 3.90
		HMC-1* VOX headset; 2600A/3600A/TH-A/B 49.95

*Not for TH-205AT/215A

KENWOOD - Continued

Reg	Sale	
		LH-2 Leather case for TR-2500/3500 40.95 39 ⁹⁵
		LH-3 Leather case for TR-2600A/3600A 40.95
		MS-1 Mobile stand/cgr/ps; 2600A/3600A/25/3500 59.95
		PB-21 Extra 180ma battery for TH-A/B 20.95
		PB-21H* 500ma battery for TH-A/B series 39.95
		*BC-2 or BC-6 required to charge PB-21H
		PB-25 Extra 400ma battery; TR-2500/3500 49.95
		PB-26 Extra 450ma batt; TR-2600A/3600A 49.95
		RA-3 2m BNC 3/4 wave telescopic antenna 16.95
		RA-5 2m 1/4-wv/440 3/4-wv BNC telescopic ant 20.95
		RA-6 Extra helical ant; TH-21A/21AT/21BT 12.95
		RA-7 Extra flex ant; TH-41A/41AT/41BT 12.95
		RA-8A 2m stubby duck for TH-A/B 12.95
		RA-8B 2m BNC stubby duck 14.95
		RA-9A 220 stubby duck for TH-A/B 12.95
		RA-9B 220 BNC stubby duck 14.95
		RA-10A 440 stubby duck for TH-A/B 12.95
		RA-10B 440 BNC stubby duck 14.95
		SC-8 Soft case w/belt hook; TH-A series 15.95
		SC-8T Soft case w/belt hook; TH-AT/BT 15.95
		SC-9 Soft case w/belt hook; 2600A/3600A 29.95
		SMC-25 Speaker/mic for TR-2500/3500 42.95
		SMC-30 Speaker/mic; 2600A/3600A/all TH's 42.95
		ST-2 Desk quick cgr/ps; 2600A/3600A/2500/3500 114.95 109 ⁹⁵
		TU-1 Programmable encoder for TR-2500 D 39.95
		TU-35B Prog encoder; 2600A/3600A/3500 49.95
		TU-6 Programmable encoder for TH-A/AT 36.95
		VB-2530 2m 25w amplifier 119.95 112 ⁹⁵
		WS-1 Wrist strap 2.70

Accessories for TR-2400

		BC-5 Mobile quick charger D\$ 42.95
		BH-1 Belt hook 4.95
		LH-1 Leather case 40.95 39 ⁹⁵
		PB-24 Nicad battery w/charger adapter 41.95

LARSEN

47-54 MHz ANTENNAS

		NLA-50 6m ant only (no mount) \$ 35.67 32.10
		NLA-50-K 6m 3/4" snap mt ant 46.17 41.55

144-174 MHz ANTENNAS

		NLA-150 2m ant only (no mount), 3 db \$ 33.17 29.85
		NLA-150-GC 2m gtr clamp mt ant, 3 db 53.17 47.85
		NLA-150-K 2m 3/4" snap mt ant, 3 db 43.67 39.30
		NLA-150-MM 2m magnetic mt ant, 3 db 55.17 49.65
		NLA-150-TLM 2m trunk lid mt ant, 3 db 54.17 48.75
		NLA-150-TMB 2m tnk gtr mt ant, 3db 48.17 43.35
		NMO-150 2m ant only (no mount), 3 db 33.17 29.85
		NMO-150-K 2m 3/4" hole mt ant, 3 db 47.67 42.90
		NMO-150-MM 2m magnetic mt ant, 3 db 56.67 51.00
		OM-150-K 2m no gnd plane ant, 2db 42.67 38.40

220-265 MHz ANTENNAS

		NLA-220 220 ant only (no mount), 3 db \$ 33.17 29.85
		NLA-220-GC 220 gtr clamp mt ant, 3db 53.17 47.85
		NLA-220-K 220 3/4" snap mt ant, 3 db 43.67 39.30
		NLA-220-MM 220 magnetic mt ant, 3db 55.17 49.65
		NLA-220-TLM 220 trunk lid mt ant, 3db 54.17 48.75
		NLA-220-TMB 220 tnk gtr mt ant, 3 db 48.17 43.35
		NMO-220 220 ant only (no mount), 3 db 33.17 29.85
		NMO-220-K 220 3/4" hole mt ant, 3 db 47.67 42.90
		NMO-220-MM 220 magnetic mt ant, 3 db 56.67 51.00
		OM-220-K 220 no gnd plane ant, 2 db 42.67 38.40

440-460 MHz ANTENNAS

		NLA-440 440 ant only (no mount), 5 db \$ 33.17 29.85
		NLA-440-GC 440 gtr clamp mt ant, 5db 53.17 47.85
		NLA-440-K 440 3/4" snap mt ant, 5 db 43.67 39.30
		NLA-440-MM 440 magnetic mt ant, 5db 55.17 49.65
		NLA-440-TLM 440 trunk lid mt ant, 5db 54.17 48.75
		NLA-440-TMB 440 tnk gtr mt ant, 5 db 48.17 43.35
		NMO-440 440 ant only (no mount), 5 db 33.17 29.85
		NMO-440-K 440 3/4" hole mt ant, 5 db 47.67 42.90
		NMO-440-MM 440 magnetic mt ant, 5 db 56.67 51.00
		OM-440-K 440 no gnd plane ant, 2 db 51.17 46.05
		NLA-2/70 2m/440 2-band ant (no mt), 2/4db 45.00 40.50
		NMO-2/70 2m/440 2-band ant (no mt), 2/4db 45.00 40.50
		NLAQ 136-512 MHz 1/4 wave ant (no mt) 8.50
		NLAQ-K 136-512 MHz 1/4 wave snap mt ant 19.00
		NMOQ-Spec 136-512 MHz 1/4 wave ant (no mt) 8.50
		NMOQ-Spec-K 136-512MHz 1/4 wv 3/4" hole ant 23.00



USE
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LARSEN - Continued		Reg	Sale
BSA-150-K 2m base station antenna	66.17	59.55
BSA-220-K 220 base station antenna	66.17	59.55
BSA-440-K 440 base station antenna	.....	66.17	59.55
FB1-136 Base station 136-230 MHz ant	...	125.00	112.50

ON GLASS ANTENNAS

KG-144-PL 2m 3db on glass antenna	.....\$	58.50	52.65
KG-440-PL 440 2.4db on glass antenna	...	58.50	52.65
KG-440-N 440 2.4db on glass ant w/type N	.....	61.00	54.90

KULDUCKIES - For Hand-helds

KD1-146 2m 5/16-32 thread Kulduckie	†\$	11.50	6.95
KD2-146 2m Kulduckie; Motorola MX	.....	11.50	
KD4-146 2m BNC Kulduckie	.....	15.00	
KD4-222 220 BNC Kulduckie	.....	15.00	
KD1-445 440 5/16-32 thread Kulduckie	.....	11.50	
KD4-445 440 short BNC Kulduckie	.....	15.00	
KD14-445 440 ¼ wave BNC Kulduckie	....	15.00	
KD4-146-HQ 2m part helical, part ¼-wave BNC	.....	19.00	
KD14-150-HW 2m ½-wave BNC antenna	..	32.50	
KD14-440-HW 440 ½-wave BNC antenna	.....	32.50	

ACCESSORIES & REPLACEMENT PARTS

ASC-161 ASP trunk mt, ¾" hole	.....\$	5.70	
BAM Cowl mt only for NLA antenna	.... D	5.28	
BAM-K Cowl mt w/coax for NLA ant	.... D	10.00	
BSA-K Base station mounting kit	.....	33.00	
CRK NLA Contact replacement kit	.....	.50	
NLA-150-CO Extra coil for NLA-150	.....	24.50	
NLA-220-CO Extra coil for NLA-220	.....	24.50	
NLA-UHF-CO Extra coil for NLA-440	.....	24.50	
NLA-GC Gutter mt w/coax for NLA ant	....	20.00	
NLA-MM Magnet mt, coax for NLA ant	.....	22.00	
NLA-TLM Trunk lip mt, coax for NLA ant	...	21.00	
NLA-B ¾" snap mt only	.....	4.00	
NLA-K ¾" snap mt with coax	.....	10.50	
NMO-MM Magnet mt, coax for NMO ant	...	23.50	
NMO-TLM Trunk lip mt, coax for NMO ant	.....	25.00	
NMO-K ¾" hole mt with coax	.....	14.50	
RG-NLA Extra NLA rubber gaskets Pack of 3	.....	.83	
TMB-38 Trunk mtg bkt for NLA ant	.....	4.50	
TMB-34 Trunk mtg bkt for NMO ant	.....	4.50	
W-155 Extra whip, coil for NLA-440	.....	17.17	
W-490 Extra whip for others	.....	8.67	

MFJ ANTENNA TUNERS

MFJ-989B 3kw PEP w/roller inductor	....\$	349.95	309 ⁹⁵
MFJ-962B 1.5kw PEP/meter/switch/balun	.....	229.95	199 ⁹⁵
MFJ-949C 300w/meter/dummy/sw/balun	.....	149.95	134 ⁹⁵
MFJ-941D 300w w/meter, switch, balun	.....	99.95	89 ⁹⁵
MFJ-945C 300w tuner w/meter	.....	79.95	72 ⁹⁵
MFJ-901B Versa Tuner 200w ant tuner	.....	59.95	54 ⁹⁵
MFJ-16010 200w random wire tuner	.....	39.95	
MFJ-910 80-10m mobile antenna matcher	.....	19.95	
MFJ-920 2m/220 300w PEP ant tuner	....	49.95	
MFJ-921 2m/220 300w PEP tuner/SWR/wattmeter	.....	69.95	63 ⁹⁵

MEMORY KEYERS

MFJ-484C 12 25-char & 25-100 char msg\$	139.95	125 ⁹⁵	
MFJ-482B 4 25-char or 50 & 2 25-char	.....	99.95	89 ⁹⁵
MFJ-1312 12vdc adapter	.....	9.95	

ELECTRONIC KEYERS

MFJ-407B Deluxe electronic keyer	.....\$	69.95	63 ⁹⁵
MFJ-401B Econo keyer	.....	49.95	
MFJ-1305 5vdc ps; 408/407/405/401	.....	9.95	
MFJ-1312 12vdc ps; 410/406	.....	9.95	

KEYER/PADDLES

MFJ-422B Keyer/Bencher paddle combo	\$129.95	119 ⁹⁵	
MFJ-422BX As above, but keyer only	....	79.95	72 ⁹⁵

KEYBOARD ACCESSORIES

MFJ-54 Loop keying plug-in module; 494 Dmve\$	29.95	4 ⁹⁵	
MFJ-61 Clock module for MFJ-496 only Dmw	29.95	4 ⁹⁵	

COMPUTER INTERFACES

MFJ-1224 Interface* w/tape software; VIC\$	99.95	89 ⁹⁵	
MFJ-1224 Interface* w/tape software; C64	.....	99.95	89 ⁹⁵
MFJ-1229 Deluxe interface* w/tape; VIC	179.95	159 ⁹⁵	
MFJ-1229 Deluxe interface* w/tape; C64	179.95	159 ⁹⁵	
MFJ-1312 12vdc adapter	.....	9.95	

*Compatible with Kantronics software.

MFJ-1228 Interface board, tape software; VICD	69.95	63 ⁹⁵	
MFJ-1228 Interface board, tape software; C64D	69.95	63 ⁹⁵	
MFJ-1270 Packet radio TNC2	.....Dw	129.95	119 ⁹⁵
MFJ-1270B Packet radio TNC2	.....	139.95	129 ⁹⁵
MFJ-1282 Disk software; C64 & VIC-20	.....	19.95	
MFJ-1283 Tape software; C64 & VIC-20	.....	19.95	
MFJ-1274 Packet radio controller	.....	169.95	149 ⁹⁵
MFJ-1273 Packet tuning indicator	.....	49.95	
MFJ-1272 TNC to microphone interface	...	29.95	

MFJ - continued

SSB/CW FILTERS

MFJ-752C Dual tunable SSB/CW filter	....\$	99.95	89 ⁹⁵
MFJ-751 Tunable SSB/CW filter	....Dwve	69.95	59 ⁹⁵
MFJ-732 DXer's SSB/FM/FM filter	.....	69.95	63 ⁹⁵
MFJ-723 CW/notch filter	.....	49.95	
MFJ-722 SSB/CW/notch filter	.....	79.95	72 ⁹⁵
MFJ-720 CW filter	.....D	39.95	

SPEECH PROCESSORS

MFJ-525/B RF speech processor	.....Dm\$	119.95	59 ⁹⁵
MFJ-520BXII Deluxe log speech proc	... D	59.95	54 ⁹⁵

PHONE PATCHES

MFJ-624B Phone patch w/audio VU meter\$	69.95	63 ⁹⁵	
MFJ-620 Phone patch	.....D	54.95	49 ⁹⁵

DUMMY LOADS

MFJ-262 1kw dry dummy load	.....\$	64.95	59 ⁹⁵
MFJ-260 300w dry dummy load	.....	26.95	
MFJ-250 2kw PEP dummy load w/oil	....	44.95	

SWR/WATTMETER/SENSORS

MFJ-812 14-170 MHz SWR/FS/wattmeter\$	29.95		
MFJ-814 1.8-30 MHz SWR/wattmeter Dmw	49.95	39 ⁹⁵	
MFJ-815 160-10m crl needle SWR/watt	59.95	54 ⁹⁵	
MFJ-816 1.8-30 MHz toroidal SWR/watt	29.95		
MFJ-818 Automatic digital SWR/wattmeterD	59.95		
MFJ-820 SWR/wattmeter w/any 1 sensorDw	69.95	49 ⁹⁵	
MFJ-830 HF 200/2000w sensor	... Dmf	29.95	19 ⁹⁵
MFJ-832 QRP 2/20w sensor	.... Dmfv	29.95	19 ⁹⁵
MFJ-833 VHF 200/2000w sensor	.... Dmfv	29.95	19 ⁹⁵

SHORTWAVE ACCESSORIES

MFJ-959B Receiver ant tuner w/preamp	\$	89.95	79 ⁹⁵
MFJ-1020A .3-30 MHz indoor active rcv ant	.....	79.95	72 ⁹⁵
MFJ-1024 .05-30 MHz outdoor active rcv ant	.....	129.95	116 ⁹⁵
MFJ-1030BX 20 db 10-30 MHz rcvr preamp	.....	49.95	
MFJ-1040B Deluxe receiver preselector	...	99.95	89 ⁹⁵
MFJ-1045 Receiver preselector	.....	69.95	63 ⁹⁵
MFJ-304 4-band mobile SWL converter	.....	79.95	72 ⁹⁵
MFJ-308 8-band mobile SWL converter	.....	99.95	89 ⁹⁵

FUSED MULTI-OUTLET AC POWER STRIPS

MFJ-1108 7 socket w/relay for protection\$	99.95	89 ⁹⁵	
MFJ-1107 8 socket/varistor/3 RFI filters	.....	79.95	72 ⁹⁵
MFJ-1106 12 socket/varistor/RFI filter	...	59.95	54 ⁹⁵
MFJ-1105 12 socket/varistor	.....	49.95	
MFJ-1100 5 socket	.....Dv	14.95	4 ⁹⁵

ACCESSORIES

MFJ-1305 5vdc adapter	.....\$	9.95	
MFJ-1309 9vac adapter	.....	9.95	
MFJ-1312 12vdc adapter	.....	9.95	
MFJ-107 24-hour digital clock	.....	9.95	
MFJ-108 24/12-hr digital clock	.....	19.95	
MFJ-200BX 25/50/100 KHz calibrator	....	39.95	
MFJ-202B RF noise bridge	.....	59.95	54 ⁹⁵
MFJ-204B Antenna bridge	.....	79.95	72 ⁹⁵
MFJ-206 Antenna current probe	.....	79.95	72 ⁹⁵
MFJ-313 VHF police/fire/WX conv; 2m HT	.....	39.95	
MFJ-555B Code oscillator	.....	24.95	
MFJ-701 Toroid RFI filters	..... pack of 4	14.95	
MFJ-931 Artificial ground unit	.....	79.95	72 ⁹⁵
MFJ-1230/32 Inductive coupled modemDmwv	129.95	59 ⁹⁵	
MFJ-1240 RS-232 transfer switch	.....	79.95	72 ⁹⁵
MFJ-1266 C-64 disk code tutor program	...	19.95	
MFJ-1267 C-64 cart code tutor program	...	29.95	
MFJ-76 1266/67 interface board; kyr/kybrd	.....	19.95	
MFJ-1621 40-10m 54" port ant w/tuner	.....	79.95	72 ⁹⁵
MFJ-1700B Combination ant/xmtr switch	.....	59.95	54 ⁹⁵
MFJ-1701 6-position coax switch	.....	29.95	
MFJ-1702 2-position coax switch	.....	19.95	
MFJ-2045 440 .1-3/4-15w HT mounted ampDmve	.....	59.95	49 ⁹⁵
MFJ-2041 Port power pack, case for amps Dv	.....	89.95	39 ⁹⁵

MACROTRONICS

SOFTWARE FOR RM-1000 RADIO MODEM

RM-101C TRS-80 I software cassette	... Dm\$	99.00	4 ⁹⁵
RM-103C TRS-80 3 or 4 software tape	Dm	99.00	4 ⁹⁵
RM-200 Apple software disk	.....Dm	99.00	4 ⁹⁵
RM-300 IBM software disk	.....Dm	149.00	19 ⁹⁵
Terminall T-2 Terminal for Apple II	....Dm	499.00	89 ⁹⁵

MAXON

MX-49S 49MHz FM headset Xcvr	... Dmwv\$	39.95	29 ⁹⁵
2 or more	..... each		26 ⁹⁵
MX-49HI Motorcycle headset Xcvr/intercom D	.....	69.95	34 ⁹⁵
MX-49HR Motorcycle Xcvr/intercom/FM radio D	.....	79.95	39 ⁹⁵
MX-49SA 49MHz FM headset Xcvr	.....	39.95	29 ⁹⁵
2 or more	..... each		26 ⁹⁵
MX-49B Deluxe 49MHz FM headset Xcvr/cgr	.....	49.95	36 ⁹⁵

MAXON - Continued

MX-49-H5 5-ch 49MHz FM headset Xcvr	.....	69.95	44 ⁹⁵
MX-49HQ 49 MHz motorcycle headset Xcvr	.....	59.95	39 ⁹⁵
MX-49H 49MHz FM handheld Xcvr	.....	29.95	24 ⁹⁵
MX-49HD 5-ch 49MHz handheld Xcvr	.....	49.95	36 ⁹⁵
MX-49-B5 5-ch 49 MHz FM base Xcvr	....	69.95	54 ⁹⁵

MICROLOG □

AVR-2 CW/RTTY/ASCII/AFSK demod	Dm	\$599.00	89 ⁹⁵
ATR-6800 CW/RTTY/SSTV terminal	.. □m	2370.00	1499
AIR-1/20 Plug-in prog term board; VIC-20Dmf	.....	199.00	89 ⁹⁵
AIR-1/AMTOR/20 Term board; VIC-20 Dm	.....	279.00	99 ⁹⁵

AIRDISK* AIR-1 disk w/AMTOR; VIC-20 & C64□	.....	39.95	
ROM* AIRDISK cartridge; VIC-20 & C64 □	.....	59.95	

*AIRDISK and ROM require terminal unit

ART-1 Amateur remote term w/AMTOR; C-64/128□	.....	199.00	169 ⁹⁵
Packet option for ART-1	.....□	99.00	89 ⁹⁵
ROM cartridge for ART-1 (in lieu of disk drive)□	.....	49.00	
SWL C64 RTTY/CW shortwave listener cart□	.....	64.00	
Morse Coach C64 Morse code instruction cart□	.....	49.95	

Call Paul Sirbinski at Milwaukee headquarters for your Microlog needs.

See Panasonic for Monitors

Mini-Products Miniaturized Antennas □

B-24 20-6m 2 el beam, 2-5 db	.....□mf\$	159.95	129 ⁹⁵
RK-3 Reflector kit for B-24, adds 3 db□m	.....	99.95	84 ⁹⁵
C-4 20-6m coaxial vertical	.....□mwf	89.95	79 ⁹⁵

MIRAGE

A-1015 50-52 FM/SSB 10/150w amp/preamp\$	306.00	279 ⁹⁵	
B-23S 2m FM/SSB 2/30w amplifier	.....	104.00	96 ⁹⁵
B-23A 2m FM/SSB 2/30w amp/preamp	.....	137.00	124 ⁹⁵
B-215 2m FM/SSB 2/150w amp/preamp	.....	305.00	259 ⁹⁵
B-108 2m FM/SSB 10/80w amp/preamp	.....	189.00	169 ⁹⁵
B-1016 2m FM/SSB 10/160w amp/preamp	.....	305.00	259 ⁹⁵
B-3016 2m FM/SSB 30/160w amp/preamp	.....	247.00	224 ⁹⁵
C-22A 220 FM/SSB 2/20w amp/preamp	.....	137.00	124 ⁹⁵
C-211 220 FM/SSB 2/110w amp/preamp	.....	315.00	279 ⁹⁵
C-106 220 FM/SSB 10/60w amp/preamp	.....	210.00	189 ⁹⁵
C-1012 220 FM/SSB 10/120w amp/preamp	.....	315.00	279 ⁹⁵
C-3012 220 FM/SSB 30/120w amp/preamp	.....	260.00	239 ⁹⁵
D-15N 430 FM/SSB/ATV type N amp	.....	169.00	159 ⁹⁵
D-24 440 FM/SSB 2/40w amplifier	.....	230.00	209 ⁹⁵
D-24N 440 FM/SSB 2/40w type N amp	....	230.00	209 ⁹⁵
D-1010 440 FM/SSB 10/100w amplifier	†	338.00	299 ⁹⁵
D-1010N 440 FM/SSB 10/100w type N amp†	.....	338.00	299 ⁹⁵
D-3010 440 FM/SSB 30/100w amplifier	.....	312.00	289 ⁹⁵
D-3010N 440 FM/SSB 30/100w type N amp	.....	312.00	289 ⁹⁵
RC-1 Remote control head w/18' cable	...	36.00	
MP-1 160-10m 25/200/2kw PEP wattmeter	.....	182.00	159 ⁹⁵
MP-2 6 & 2m 50/500/1.5kw PEP wattmeter	.....	182.00	159 ⁹⁵

The following Repeater Amplifiers are available on Special Order. Specify S0-239 or type N connectors.

B-215R 2m FM 1/110w amplifier	.....	\$483.00	429 ⁹⁵
B-1016R 2m FM 4/120w amplifier	.....	473.00	419 ⁹⁵
B-3016R 2m FM 12/120w amplifier	.....	431.00	379 ⁹⁵
C-211R 220 FM .5w/80w amplifier	.....	493.00	439 ⁹⁵
C-1012R 220 FM 5/90w amplifier	.....	493.00	439 ⁹⁵
C-3012R 220 FM 15/90w amplifier	.....	423.00	389 ⁹⁵
D-1010R 440 FM 4/80w amplifier	.....	515.00	459 ⁹⁵
D-1010NR 440 FM 4/80w type N amp	.....	515.00	459 ⁹⁵

NICAD BATTERIES

GE 2GE3A AAA size nicad	pair	\$ 6.42
GE 2GC1 AA size nicad	pair	6.42
GE 2GC2 C size nicad	pair	7.99
GE 2GC3 D size nicad	pair	7.99
GE GC9B 9V nicad	each	7.99
GE BC-4/Charge 4 Charger for 4 nicads		15.85
GE BC-8/Charge 8 Charger for 8 nicads		21.90
SAFT (Gould) 2CSAAA AAA size nicad	pair	3.95
SAFT (Gould) 2CSAA AA size nicad	pair	4.95
SAFT (Gould) 2CSC C size nicad	pair	5.95
SAFT (Gould) 2CSD D size nicad	pair	5.95
SAFT (Gould) CS9T 9V nicad	each	7.95
SAFT (Gould) CC-1 Charger for 4 nicads		11.69
JaBro J/CM-3 Replacement inserts; lcom BP-3		29.95
JaBro J/CM-5 Replacement inserts; lcom BP-5		31.95
JaBro J/CM-7 Replacement inserts; lcom BP-7		48.00
JaBro J/CP-8 Replacement inserts; lcom BP-8		41.00
JaBro J/CM-7F 13.2v 800ma batt for lcom		98.50
JaBro J/CM-8F 9.6v 1000ma batt for lcom		98.50

NYE VIKING

ANTENNA TUNERS AND ACCESSORIES

MBI-01 100w tuner without balun	D	\$185.00	169 ⁹⁵
MBI-02 100w tuner with balun	D	215.00	194 ⁹⁵
MBI-03 Balun kit for tuner	Dm	34.00	24 ⁹⁵
MBIV-A1 3000w tuner without balun		485.00	429 ⁹⁵
MBIV-A2 3000w tuner with balun		525.00	469 ⁹⁵
MB-V-A 3000w tuner with ant switching		625.00	559 ⁹⁵
ANT-001 All-band dipole antenna w/feedline		44.00	
020-001 2kw low-pass filter		32.50	
SWR-002 2m auto SWR/wattmeter	Dmfv	125.00	59 ⁹⁵
SWR-006 2m automatic SWR/wattmeter	D	153.00	136 ⁹⁵
RFM-003 300/3000w power monitor w/1 coupler		249.95	219 ⁹⁵
RFM-005 500/5000w power monitor w/1 coupler		249.95	219 ⁹⁵
C-1.8-30-5C Extra 300/500w coupler		49.95	
C-1.8-30-5K Extra 3000/5000w coupler		49.95	
SWR-003 160-10m auto SWR/wattmeter for blind		153.00	136 ⁹⁵

PHONE PATCHES

046-001 Phone patch	Dmf	\$ 68.00	59 ⁹⁵
046-003 Phone patch with speaker	Dmfv	82.00	74 ⁹⁵
046-006 Phone patch for lcom	Df	90.50	79 ⁹⁵
047-001 Phone patch w/4-pin, no spkr		89.95	82 ⁹⁵
047-002 Phone patch w/8-pin, no spkr		94.95	86 ⁹⁵
047-003 Phone patch w/4-pin & spkr		109.95	99 ⁹⁵
047-006 Phone patch w/8-pin & spkr		119.95	108 ⁹⁵

IAMBIC KEYS AND SQUEEZE PADDLES

ESK-001 Battery operated CMOS keyer		\$ 72.00	64 ⁹⁵
SSK-2-K Squeeze keyer & paddle w/AC ps		128.50	116 ⁹⁵
SKM-001 Memory keyer w/squeeze key	Df	195.00	89 ⁹⁵
SKM-016 Memory keyer w/squeeze key		235.00	209 ⁹⁵
SSK-001 Dual paddle Super Squeeze Key		38.50	
SSK-1CP Chrome plated dual paddle key	D	58.00	
SSK-003 As SSK-001, w/base for reg Nye key D		38.50	

MASTER KEY

330-001 Black enamel base w/cable, plug	\$	32.50
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HEAVY DUTY SPEED-X KEYS WITH NAVY KNOBS

320-001 No shorting switch	\$	19.50
320-003 As above, w/shorting switch		21.00
322-001 Brass hardware, no switch		19.50
322-003 As above, w/shorting switch		21.00

STANDARD SPEED-X KEYS

310-001 Black, no shorting switch	\$	19.50
310-003 As 310-001, w/shorting switch		21.00
312-001 Brass arm, no shorting switch		21.50
312-003 As 312-001, w/shorting switch		23.00
315-001 Polished brass oval key, steel base		34.95

All telegraph key bases are finished in black wrinkle, except 321-series, which is chrome plated. 310-series have oval bases, & 320-series have rectangular bases.

KEY ACCESSORIES

013-001 Navy knob	\$	3.50
300-001 Black plastic base for keys		3.85
300-002 Hvy steel base, non-skid feet for keys		12.50

CODE PRACTICE SETS (BUZZER)

404-001 Code practice set without key	\$	17.50
404-002 Code practice set with key		32.50

OKI-DATA

182 Dot matrix printer	\$299.00	249 ⁹⁵
Fan-fold paper	case	34.95
Extra ribbon cartridge for 182		8.95

Call Paul Sirbinski at Milwaukee headquarters for your printer needs.

PALOMAR ENGINEERS

LA-1 Loop Amplifier; matches loop to Rcvr	\$	84.95
5-15 MHz plug-in loop (HF-1)		62.95
1.6-5 MHz plug-in loop (160m, 80m)		62.95
.55-1.6 MHz loop (AM broadcast)		62.95
150-550 KHz loop (LF, 1750m)		62.95
40-150 KHz loop (WWVB, Loran)		62.95
10-40 KHz plug-in loop (Omega)		62.95
RX-100 1-100 MHz R-X noise bridge		59.95
P-310X 160-6m 20db Xcvr preamp DEMODf		149.95
P-405 1.8-54 MHz 20 db 9v Rcvr preamp		119.95
P-408 1.8-54 MHz 20 db AC Rcvr preamp		129.95
P-410X 160-6m 20 db Xcvr preamp		149.95
P-412X 160-6m 20 db mobile Xcvr preamp		149.95
PT-340 Tuner-Tuner (use with ant tuner)		99.95
VLF-A VLF Converter; 10-500 KHz to 80m		79.95
VLF-S VLF Conv; 10-500 KHz to 4-4.5 MHz		79.95

PANASONIC SHORTWAVE RECEIVERS

RF-6300 8-band digital Rcvr DEMO	Dw	\$749.95	369 ⁹⁵
RF-B60 Compact FM/LW/MW/SW port Rcvr		299.95	239 ⁹⁵
RF-B300 6-band port digital Rcvr		329.95	259 ⁹⁵
RF-3100 31-band digital Rcvr		549.95	399 ⁹⁵
RF-B600 LW/SW/FM receiver		799.95	569 ⁹⁵
TR-930 9" B & W monitor		255.00	189 ⁹⁵
TR-124M 12" B & W monitor		315.00	229 ⁹⁵
WV-1410 B & W CCTV camera only		300.00	189 ⁹⁵
WVLM-16 Lens only for WV-1410		29.00	
MN-815 Wide angle lens only for WV-1410		115.00	99 ⁹⁵

Call Dale Barber at Milwaukee for CCTV

PIPO TOUCH-TONE PADS

PP-1 12-digit pad	\$	55.00
PP-1K 12-digit pad w/delay relay		62.00
PP-1M 12-digit pad for surface mtg		55.00
PP-2 16-digit pad		59.00
PP-2K 16-digit pad w/delay relay		66.00
PP-2M 16-digit pad for surface mtg		59.00
P-3 12-digit pad w/separate electronics		45.00
P-3A 16-digit pad w/separate electronics		49.00
P-3B 16-dig slim pad, separate electronics		54.00
PP-4K 12-digit pad w/delay relay	□m	62.00
PP-5 12-digit horizontal pad w/light		60.00
PP-5K 12-digit horiz pad w/light & relay		67.00
PP-5V 12-digit vertical pad w/light		60.00

PORTASOL

B-700 Portable butane soldering iron	\$	34.95
RT-24 Extra 2.4mm beveled tip		9.85
RT-32 Optional 3.2mm beveled tip		9.85
RT-48 Optional 4.8mm beveled tip		9.85

RF CONCEPTS

2-23 2m FM/SSB 2/30w amp/preamp	\$	112.00	104 ⁹⁵
2-217 2m FM/SSB 2/170w amp/preamp		299.00	269 ⁹⁵
2-117 2m FM/SSB 10/170w amp/preamp		299.00	269 ⁹⁵
2-317 2m FM/SSB 30/170w amp/preamp		264.00	239 ⁹⁵
2-417 2m FM/SSB 45/170w amp/preamp		264.00	239 ⁹⁵
3-22 220 FM/SSB 2/20w amp/preamp		112.00	104 ⁹⁵
3-211 220 FM/SSB 2/110w amp/preamp		299.00	269 ⁹⁵
3-112 220 FM/SSB 10/120w amp/preamp		299.00	269 ⁹⁵
3-312 220 FM/SSB 30/120w amp/preamp		264.00	239 ⁹⁵
4-32 440 FM/SSB 3/20w amp/preamp		169.00	154 ⁹⁵

RF PRODUCTS

199-415 BNC mag mt, 10' coax w/BNC	\$	15.95
199-495 SO-239 mag mt, 13' coax w/PL-259		18.95

RADIO AMATEUR CALLBOOK

1988 North American Callbook (avail 12/87)	\$	25.00
1988 International Callbook (avail 12/87)		27.00
1987 North American Callbook		25.00
1987 International Callbook		25.00
June '87 Callbook Supplement (N.A. & int.)		10.00
Prefix Map of the World		4.00
Map of North America		4.00
Great Circle Chart of the World		4.00
World Atlas		5.00
Map Library; above 3 maps & FREE atlas		12.00
DX Guide		5.00



USE
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VISA

RADIO PUBLICATIONS

All About Cubical Quad Antennas	\$	7.95
Beam Antenna Handbook		9.95
Better Shortwave Reception		7.95
VHF Handbook for Radio Amateurs		11.95
Care and Feeding of Power Grid Tubes		9.95
Radio Amateur Antenna Handbook		9.95
Simple Wire Antennas for Radio Amateurs		9.95
Interference Handbook		9.95
All About Vertical Antennas		10.95

REYCO (See W2AU)

ROBOT

800CH "High-tones" term for VHF	□mw	\$895.00	349 ⁹⁵
PC-1 Parallel printer cable; 800C/800CH	□mv	35.00	9 ⁹⁵
RF-1 RF modulator board	□mw	29.00	6 ⁹⁵

See Panasonic for Cameras & Monitors

ROHN

HBX-40 40' tower, 10 sq ft, 228 lbs	*T	269 ⁹⁵
HBX-48 48' tower, 10 sq ft, 303 lbs	*T	369 ⁹⁵
HBX-56 56' tower, 10 sq ft, 385 lbs	*T	469 ⁹⁵
HDBX-40 40' tower, 18 sq ft, 281 lbs	*T	339 ⁹⁵
HDBX-48 48' tower, 18 sq ft, 363 lbs	*T	459 ⁹⁵

*Drop-shipped from factory or Milwaukee pick-up

On factory drop-shipsments we prefer payment in full with order, however, we will accept your Visa or Mastercard with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB the Rohn factory, which has various locations, via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these drop-shipped towers.

Note: Rohn states that "antennas developing a large twisting moment due to wind must not be used on these towers. Antennas should be limited to those having a maximum boom length of 10 ft."

SAMS

Radio Operators Commercial License Q & A Manual \$ 16.95

SANGEAN

AT-803 AM/FM/shortwave portable receiver	\$199.95	179 ⁹⁵
SG-792 AM/FM/shortwave portable receiver	44.95	39 ⁹⁵

SANTEC (See Encomm)

SHAKESPEARE

376-GBSU 10m 18' tunable fg base ant (UPS OK)	\$	82.95	59 ⁹⁵
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SHURE

444D Hi/lo-Z desk microphone	\$	78.00	64 ⁹⁵
R44D Replacement cartridge	□	26.35	
R111 Replacement cartridge		24.95	
526T Series II Dynamic amplified desk mic		102.25	84 ⁹⁵
R96 Replacement cartridge		22.70	
404C Hi-Z deluxe mobile mic		52.00	42 ⁹⁵
R5F Replacement cart for 404C/401A		24.70	
524C Dynamic amplified mobile mic	Dmw	69.00	19 ⁹⁵

SMILEY ANTENNA (Tuned Antenna)

Slim Duck II 2m thin rubber antenna	\$	12.95	9 ⁹⁵
Slim Duck III 220 thin rubber antenna		12.95	9 ⁹⁵
Slim Duck IV 440 thin rubber antenna		12.95	9 ⁹⁵
Specify BNC or threads			
Super Stick II 2m 3/4 wv & stubby ants for HT		19.95	
Specify BNC or threads			
Thin Stick 2m/220 3/4 wave telescopic whip		14.95	
Specify BNC or threads			
Super Rod 3 1/4 wv mag ant - 2m, 220, or 440		22.95	

SOAR

3010 3 1/2-digit pocket personal DMM	Dwe	\$ 29.95
3020 3 1/2-digit pocket personal DMM	□	35.00

SONY

ICF-2002 AM/FM/shortwave receiver	D	\$319.95	229 ⁹⁵
ICF-2003 AM/FM/shortwave receiver		319.95	239 ⁹⁵
ACD-4L AC power supply		21.95	
DCC-127A Car cord		29.50	
ICF-2010 AM/FM/SW/LW/Air port rcvr w/ps		449.95	329 ⁹⁵
DCC-127A Car cord		29.50	
PRO-80 150 KHz-108 MHz, 115-223 MHz port scanner		499.95	349 ⁹⁵
ACD-4L AC power supply		21.95	
BP-23 Rechargeable batt pack for 4 AA's		25.00	
DCC-127A Car cord		29.50	

SOUTH RIVER Boxed Tripods (UPS OK)

HDT-3E-PPK 3 foot tripod	\$	16.95
HDT-5E-PPK 5 foot tripod		24.95

TELEX (See Hy-Gain)

TEMPO

	Reg	Sale
S-15 1/5w 2m HT/batt/cgr/duck	\$329.00	299 ⁹⁵
S-15T 1/5w 2m HT/batt/cgr/duck/TTP	359.00	319 ⁹⁵
ACH-15 1 hour quick charger	65.00	
ACH-25 Extra wall charger	12.00	
BP-15 Extra battery pack	39.00	
CC-15 Carrying holster for S-15	25.00	
CC-15-TT Carrying holster for S-15T	25.00	
DC-15 Cig lighter DC cord	6.00	
DCC-15 Cig lighter cord & charger	15.00	
HM-15 Speaker/mic	40.00	
S-30 2m FM 30w amplifier	89.00	82 ⁹⁵
S-80 2m FM 80w amplifier	149.00	136 ⁹⁵
HM-5 Speaker/mic for S-1/2/5	40.00	
S-20 220 FM 20w amplifier for S-2	89.00	82 ⁹⁵
HM-6 Speaker/mic for S-4	40.00	
S-40 440 FM 40w amplifier for S-4	149.00	136 ⁹⁵
TS-AD Antenna thread to BNC adaptor	10.00	
TS-CC Carrying case; S-1/2/4/5	25.00	
TS-HA-2 220 threaded rubber ant for S-2 □mwv	10.00	2 ⁹⁵
TS-MC Cig lighter charger; S-1/2/4/5	10.00	
TS-BP Extra 250ma batt for early S-1	27.00	
TS-BP2 Extra 450ma batt; S-2/4/5/late S-1	37.00	

TEN-TEC

579 Century/22 50w 6-band CW Xcvr	\$425.00	384 ⁹⁵
979 5A power supply	98.00	
979/E 230v 5A power supply	110.00	
226 Crystal calibrator	35.00	
679 Internal keyer kit	29.50	
1179 DC circuit breaker	15.00	
525D Argosy II 10/100w dig Xcvr/224 filter	745.00	669 ⁹⁵
225 9A power supply	129.00	119 ⁹⁵
217 500 Hz 8-pole CW filter	65.00	
218 1.8 KHz 8-pole SSB filter	65.00	
219 250 Hz 6-pole CW filter	65.00	
220 2.4 KHz 8-pole SSB filter	65.00	
222 Mobile mount	29.50	
223A Noise blanker, sn above 0824	39.50	
224 Audio CW filter, sn below 2300	39.50	
700A Electret hand mic	37.50	
705A Electret desk mic w/connector	69.00	
1125 DC circuit breaker w/cable	19.75	
1126 Linear amplifier switching kit	16.50	
561 Corsair II 9-band digital Xcvr	1395.00	1229
960 Deluxe 22A ps w/spkr for 561	239.00	219 ⁹⁵
263G Remote VFO for 561	239.00	219 ⁹⁵
282 250 Hz 6-pole CW filter	69.00	
285 500 Hz 6-pole CW filter	69.00	
288 1.8 KHz 8-pole SSB filter	69.00	
603 KR-1B Dual keyer paddle for 561	69.00	
700C Electret hand mic w/connector	37.00	
705 Electret desk mic w/connector	69.00	
1140 18/24.3A DC circuit breaker	18.00	
585 Paragon 9-band Xcvr/.1-30 MHz Rcvr	1995.00	1789
960 Deluxe 22A ps w/spkr for 585	239.00	219 ⁹⁵
256 FM transceiver module	65.00	
257 Voice synthesizer	TBA	
258 RS-232 interface	65.00	
282 250 Hz 6-pole CW filter	69.00	
285 500 Hz 6-pole CW filter	69.00	
288 1.8 KHz 8-pole SSB filter	69.00	
700C Electret hand mic w/connector	37.00	
705 Electret desk mic w/connector	69.00	
1140 18/24.3A DC circuit breaker	18.00	
425 Titan 1.5kw PEP out amp w/CW break-in	2685.00	2299
209 300w dry dummy load	29.00	
229B 1.8-30 MHz 2kw PEP ant tuner/SWR	349.00	319 ⁹⁵
3229 Balun kit for 229B	18.00	
4229 1.8-30 MHz 2kw PEP tuner/SWR kit Dfv	219.00	199 ⁹⁵
700 Electret hand mic, less connector Dmw	31.00	29 ⁹⁵
700A Electret hand mic, 3-cond ¼" plug	37.00	
700C Electret hand mic, 4-pin female plug	37.00	
705 Electret desk mic, 4-pin female plug	69.00	
705A Electret desk mic, 3-cond ¼" plug	69.00	
RX-325 .1-30 MHz digital receiver	699.00	599 ⁹⁵
2591 .3/2.5w 2m FM HT/batt/cgr/TTP Dmw	319.00	259 ⁹⁵
2201 Sub-audible tone encoder	61.00	49 ⁹⁵
2425 30w amplifier	87.00	79 ⁹⁵
2700 Speaker/mic	43.00	
2991 Extra 450 ma nicad battery	43.00	
2992 5-hour desk charger	87.00	79 ⁹⁵
2993 12v adapter pack	27.50	

TEN-TEC - continued

2510 (orig model) SSB/CW mode B sat conv □mwv	469.00	199 ⁹⁵
2510 SSB/CW satellite Xcvr conv for mode B	549.00	489 ⁹⁵
2410 430 FM/SSB 10/100w amplifier	355.00	289 ⁹⁵
2410N 430 FM/SSB 10/100w type N amp □	365.00	299 ⁹⁵
ULTIMATE MOBILE ANTENNAS		
3180 80m antenna, 78" high	\$ 34.00	
3175 75m antenna, 78" high	34.00	
3140 40m antenna, 72" high	31.00	
3130 30m antenna, 72" high	28.50	
3120 20m antenna, 72" high	27.50	
3115 15m antenna, 72" high	25.00	
3110 10m antenna, 72" high	24.50	
3101 42" top section stinger	7.75	
3001 Switchable mobile matcher; 80-20m	18.00	

Tokyo Hi Power (See Encomm)

TRAC □

Trac-Key Twin paddle squeeze key	□m\$ 29.95	16 ⁹⁵
TE-122 CMOS keyer, grid block only	□m 45.95	9 ⁹⁵
CW PROCESSORS		
TE-424 Trac*One CW processor	□m\$ 89.95	29 ⁹⁵
TE-464 Trac*One plus deluxe CMOS keyer	□m 119.95	59 ⁹⁵

TRANSCOM □

401 Micro-miniature tunable encoder	□m\$ 29.95	9 ⁹⁵
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TRIONYX

TR-1000 600 MHz counter/batts/ps/ant	\$179.95	159 ⁹⁵
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TUBES

RCA 6146A Tube	each, □mwv\$ 18.00	
RCA 6146B Tube	each, □mwv 19.90	
GE/MPD 6146A Tube	each, D 18.00	
GE/MPD 6146B/8298A Tube	each 19.90	
8950 For Swan 700CX	matched pair 49.95	
6HF5 For Swan, Galaxy	matched pair 49.95	
6JB6 For Drake	matched pair 14.00	
Sylvania 6JS6* For Yaesu FT-101-series	ea 14.00	
*Requires radio modification & align by AES		
6KD6 For Swan 600T	matched pair 49.95	
6LB6 For Galaxy	matched pair 49.95	
6LQ6 For Dentron GLA-1000/B	set of 4 69.95	
6JE6/6MJ6/6LQ6 Swan, etc.	matched pair 49.95	
12BY7A For Yaesu or Kenwood (specify)	12.00	
572B/T160L Dentron, Yaesu, etc.	each 89.95	
811A For Collins 30L-1, etc.	each 21.50	

US TOWER

FREE STANDING CRANK-UP TOWERS

TX-438 38' crank-up tower	T \$925.00	832
TX-455 55' crank-up tower	T 1395.00	1249
TX-472 72' crank-up tower	T 2295.00	2065
TX-472MDP 72' crank-up w/motor drive	T 3695.00	3325
TX-489 89' crank-up tower	T 3995.00	3595
TX-489MDPL 89' crank-up w/motor drive	T 5995.00	5395

FREE STANDING HEAVY DUTY CRANK-UP TOWERS

HDX-538 38' crank-up tower	T 1195.00	1075
HDX-555 55' crank-up tower	T 2095.00	1885
HDX-572 72' crank-up tower	T 3595.00	3235
HDX-572MDPL 72' crank-up w/motor drive	T 5495.00	4945
HDX-589MDPL 89' crank-up w/motor drive	T 7195.00	6475

COMPACT TMM SERIES

TMM-433SS 33' crank-up tower	T \$985.00	886
TMM-433HD 33' heavy duty crank-up tower	T 1195.00	1075
TMM-541SS 41' crank-up tower	T 1295.00	1165

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms for 2-section tower	\$ 44.00	
CX-3 Coax arms for 3-section tower	63.00	
CX-4 Coax arms for 4-section tower	99.00	
CX-5 Coax arms for 5-section tower	135.00	121
HDP Service platform	T 665.00	598
IV-16 Inverted vee arm for MA's	30.00	
M-5 2" OD mast extension for MA's	33.00	
M-10 2" OD 10' mast	T 63.00	
M-15 2" OD 15' mast	T 94.00	
M-15R 2" OD 15' reinforced mast	T 141.00	126
M-20 2" OD 20' mast	T 124.00	111
M-20R 2" OD 20' reinforced mast	T 187.00	168
M-24R 2" OD 24' triple reinforced mast	T 295.00	265
MD-75 Hvy duty 1 HP motor drive	T 895.00	805
MDP-750 Pull-down motor drive; TX-472/HDX-555T	1395.00	1255
MDPL-1000 Pull-down motor drive; HDX-572T	1895.00	1705
MRF Mast raising fixture	212.00	190
MCL-100 Limit switch package	349.50	314
RMC-1000 Remote control w/limit switch	895.00	805

US TOWER - Continued

RP-3 Rotor plate for 10" section	16.50	
RP-4 Rotor plate for 12½" section	21.80	
RP-5 Rotor plate for 15" section	26.30	
TB-2US Thrust bearing; 2" mast w/2 flange holes	69.95	
TB-4US Thrust bearing; 2" mast w/4 flange holes	69.95	
TRX-80 Tower raising fixture	T 369.95	332
TRX-80HD Hvy duty tower raising fixture	T 485.00	436

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast	T \$735.00	549
MA-550 55' crank-up mast	T 1245.00	899
MA-550MDP 55' crank-up mast w/motor drive	T 2640.00	2376
MA-770 70' crank-up mast	T 2385.00	1999
MA-770MDP 70' crank-up mast w/motor drive	T 3780.00	3402
MA-850 85' crank-up mast	T 3695.00	3099
MA-850MDP 85' crank-up mast w/motor drive	T 5090.00	4581

MA-SERIES ACCESSORIES

CX-2M Coax arms for MA-40	\$ 47.50	
CX-3M Coax arms for MA-550	72.50	
CX-4M Coax arms for MA-770	119.50	107
CX-5M Coax arms for MA-850	144.50	130
MAB-40 Hinged base for MA-40	T 325.00	292
MAB-550 Hinged base for MA-550	T 390.00	350
MAB-770 Hinged base for MA-770	T 495.00	445
MAB-850 Hinged base for MA-850	T 595.00	535
MAF-40 Raising fixture for MA-40	T 185.00	159
MAF-550 Raising fixture for MA-550	T 255.00	219
MAF-770 Raising fixture for MA-770	T 295.00	265
MAF-850 Raising fixture for MA-850	T 385.00	346
MARB-40 Rotor base accessory for MA-40T	495.00	419
MARB-550 Rotor base accessory for MA-550T	585.00	489
MARB-770 Rotor base accessory for MA-770T	725.00	652
MARB-850 Rotor base accessory for MA-850T	865.00	778
MCL-100 Limit switch package	349.50	314
RMC-1000 Remote control w/limit switch	895.00	805

All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory "drop-shipments" we prefer payment in full with order, however, we will accept your Visa or Mastercard with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products.

USI

1200G/Pi-2 12" green screen monitor	□f\$199.00	89 ⁹⁵
1400/C 14" composite color video monitor	□e 398.00	199 ⁹⁵
03-005 RF modulator	□mw 29.95	9 ⁹⁵

USI warrantied by AES for 90 days

UNADILLA (See W2AU)

VALOR

VHF/UHF ANTENNAS ONLY (No Mounts)

PHB-144 2m ¾ wave 3 db antenna	\$ 26.75	23.95
PHB-220 220 ¾ wave 3 db antenna	26.75	23.95
PUBS-440 440 5 db antenna	30.00	26.95
PAQA 136-515 MHz ¼ wave ant	8.35	7.49

MOUNTS ONLY FOR ABOVE ANTENNAS

PAS ¾" surface mount w/coax	\$ 13.30	11.95
PASMO ¾" surface mt only (no coax)	8.30	7.45
PAS38 ¾" surface mount w/coax	13.30	11.95
PAS38MO ¾" surface mt only (no coax)	8.30	7.45
PAT2 No-hole trunk mount w/coax	20.45	17.95
PAM Low profile magnet mount w/coax	24.95	21.95

OTHER VHF/UHF ANTENNAS

CX-144 2m ¾ wave 3 db ¾-24 whip	\$ 14.25	12.69
CX-220 220 ¾ wave 3 db ¾-24 whip	14.25	12.69
401 Low profile mag mt only w/coax; ¾-24	25.20	22.50
VAA-002 144-450 MHz ¼ wave mag mt ant	18.40	16.95
VAA-002BN 144-450 MHz ¼ wv BNC mag ant	21.75	19.95
MOBILE HF ANTENNAS (No Mounts)		
PHF-75 75m 8' ¾-24 whip (4' coil, 4' whip)	\$ 22.15	18.95
PHF-40 40m 8' ¾-24 whip (4' coil, 4' whip)	19.65	16.95
PHF-20 20m 8' ¾-24 whip (4' coil, 4' whip)	18.40	15.95
PHF-15 15m 8' ¾-24 whip (4' coil, 4' whip)	18.40	15.95
PHF-10 10m 8' ¾-24 whip (4' coil, 4' whip)	18.40	15.95

VAN GORDEN

Hi-Q 1:1 balun	\$ 14.95	
Hi-Q 4:1 balun	14.95	
Antenna center insulator	6.95	
Dog bone type antenna insulator	each .50	

VAN GORDEN - continued		Reg.	Sale
NR-100 Nylon antenna guy rope ... 100 ft.	4.49		
NR-1,000 Nylon ant guy rope ... 1,000 ft.	43.95		
D-80 80m wire dipole antenna	31.95		
D-40 40m wire dipole antenna	28.95		
D-20 20m wire dipole antenna	27.95		
D-15 15m wire dipole antenna	26.95		
D-10 10m wire dipole antenna	25.95		
All Bander Dipole 160-10m ant (needs tuner)	29.95		
G5RV Flat-top 5-band 102' antenna w/cable	50.00		

VIBROPLEX

Presentation Super Deluxe bug	\$125.00		
Original Deluxe bug	74.95		
Original Standard bug	61.95		
Vibro-Keyer Deluxe paddle	70.00		
Vibro-Keyer Standard paddle	54.95		
Iambic Paddle Presentation	110.00		
Iambic Paddle Deluxe	70.00		
Iambic Paddle Standard	54.95		
EK-1 Brass Racer Iambic keyer/paddle	115.00		
Brass Racer Iambic paddle	44.95		
KG-120 Acrylic dust cover (A); all bugs	12.95		
KG-121 Dust cover (B); Vibro-Keyer/Iambic	12.95		
KG-122 Dust cover (C); Brass Racer/EK-1	12.95		

VOCOM 2M FM AMPLIFIERS

Power Pocket 2m FM 25w amp; IC-2A/AT	\$229.95	189 ⁹⁵	
2m 5/8 wave telescoping whip w/BNC for HT	19.95	16 ⁹⁵	

W2AU Baluns W2VS Traps (Unadilla)

W2AU 1:1 80-10m balun, lightning arrestor	\$ 17.95		
W2AU 4:1 80-10m balun, lightning arrestor	17.95		
W2DU-HF 1:1 1.8-30 MHz ferrite balun	19.95		
W2DU-VHF 1:1 30-250 MHz ferrite balun	19.95		
HA AN-sulator Center insulator	5.95		
HE END-sulator End insulator	pair 2.95		
KW-80CW Reyco 80m CW ant traps	pair 36.00		
KW-80F Reyco 75m phone ant traps	pair 36.00		
KW-40 Reyco 40m antenna traps	pair 36.00		
KW-30 Reyco 30m antenna traps	pair 36.00		
KW-20 Reyco 20m antenna traps	pair 36.00		
KW-15 Reyco 15m antenna traps	pair 36.00		
KW-12 Reyco 12m antenna traps	pair 36.00		
KW-10 Reyco 10m antenna traps	pair 36.00		
W2AU/W2VS 5-band ant kit (use tuner)	65.00		

WABER AC OUTLET STRIPS

3SP 3 outlet/breaker/switch/light	\$ 16.60		
4S 4 outlet/breaker/switch	16.60		
5 5 outlet w/breaker	16.60		
6SP 6 outlet/breaker/switch/light	19.95		
7S 7 outlet/breaker/switch	19.95		
8 8 outlet w/breaker	19.95		
LG-10 6 outlet AC line surge protector	12.95		

WAHL

7540 Isotip® cordless soldering iron kit	\$ 34.95	29 ⁹⁵	
7740 Quick charge cordless soldering iron kit	39.95	34 ⁹⁵	

WELLER

7200PK 75w soldering gun kit	\$ 19.95		
EC-1000 Deluxe temp controlled soldering str	169.61	139 ⁹⁵	
WP-25P 25w pencil-type soldering iron	21.95		
W-60P 60w temp controlled soldering iron	42.92	34 ⁹⁵	
WTCPS 60w temp controlled soldering str	119.07	99 ⁹⁵	
WSTA3 Pyrophen Portable LP soldering iron	61.29	54 ⁹⁵	
WST2 Pyrophen Jr. Portable butane iron	53.44	44 ⁹⁵	

WELZ (See Encomm)

Gordon WEST Radio School

RS-01 The Complete Novice Code & theory	\$ 49.95		
RS-02 Novice Code Course (4 tapes)	39.95		
RS-03B Novice Theory Book (book only)	4.95		
RS-04 21 Day Novice Code & Theory Course	19.95		
RS-06 General Code Course (6 tapes)	39.95		
RS-07 Technician Theory Course	19.95		
RS-09 Advanced Theory Course	19.95		
RS-11 Extra Class Code Course (6 tapes)	39.95		
RS-19 5 wpm Novice QSO test prep tape	9.95		
RS-27 13 wpm General QSO test prep tape	9.95		
RS-33 20 wpm Extra QSO test prep tape	9.95		

World Radio TV Handbook

1987 World Radio TV Handbook	\$ 19.95		
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YAESU

FT-767GX 160-10m Xcvr/1-29.99 Rcvr/tuner†	1895.00	1389	
2M/767 2m module	179.95	164 ⁹⁵	
6M/767 6m module	179.95	164 ⁹⁵	
430/767 430-440 module	219.95	199 ⁹⁵	
440/767 440-450 module	219.95	199 ⁹⁵	
SP-767 Speaker w/audio filters	79.95		
SP-102P Speaker/patch	99.95		
MD-1B8 Desk microphone	99.95		
MH-1B8 Mobile microphone	24.95		
FAS-1-4R Remote antenna selector	99.95		
FIF-65A Computer interface; Apple II	59.95		
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
FTS-8 Encoder/decoder	49.95		

FT-ONE Xcvr/Rcvr/4 filters/RAM/FM □	2859.00	1599	
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Lot 10 FT-ONE's have all the accessories shown installed. In addition, a new local oscillator circuit providing better stability for the carrier point has been added, as well as an AC line filter to keep computer hash from entering the receiver through the AC line.

FT-ONE Lot 10 Xcvr/Rcvr/4 filters/RAM/FM □	2859.00	1995	
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XF8.9KC Extra 600 Hz 8-pole CW filter □	50.00		
XF8.9KCN Extra 300 Hz 8-pole CW filter □	50.00		
XF8.9KA Extra 6 KHz 8-pole AM filter □	50.00		
XF10.7KC Extra 800Hz 6-pole 3rd IF CW filter □	45.00		
RAM Unit Extra memory back-up board □	20.00		
FM-ONE Extra FM unit	59.00		
KY-ONE Keyer unit	50.00		
DC-ONE DC cable for FT-ONE	15.00		
SP-102 Speaker w/audio filter	99.95		
SP-102P Speaker/patch	99.95		
MD-1B8 Desk microphone	99.95		
MH-1B8 Mobile microphone	24.95		
FT-980 9-band CAT Xcvr/SW Rcvr	1795.00	1295	
SP-980 Speaker w/audio filter	99.95		
SP-980P Speaker/patch	99.95		
XF-8.9HC 600 Hz CW filter (1st IF)	50.00		
XF455.8MCN 300 Hz CW filter (2nd IF)	59.95		
KY-ONE Keyer unit	50.00		
MD-1B8 Desk microphone	99.95		
MH-1B8 Mobile microphone	24.95		
FIF-65 Computer interface; Apple IIe	69.95		
FIF-80 Computer interface; NEC PC-8001	119.95	109 ⁹⁵	
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
HF-LINK-9 Software for 8-bit Atari	109.95		
FRB-1 External relay box	20.00		
FT-757GX 9-band CAT Xcvr/SW Rcvr/mic D	995.00	789 ⁹⁵	
FT-757GX Mk II 9-band CAT Xcvr/SW Rcvr/mic	1079.95	929 ⁹⁵	
FP-757HD Heavy duty supply/fan/spkr	249.95	224 ⁹⁵	
FP-757GX Compact power supply	235.00	212 ⁹⁵	
FP-700 Power supply	D 209.95	189 ⁹⁵	
FC-757AT Auto antenna tuner w/memory	359.95	329 ⁹⁵	
FAS-1-4R Remote antenna selector	99.95		
SP-102 Speaker w/audio filter	99.95		
SP-102P Speaker/patch	99.95		
MD-1B8 Desk microphone	99.95		
MH-1B8 Extra mobile microphone	24.95		
FIF-65A Computer interface; Apple II	59.95		
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
GX Turbo/C01 Software; C-64/128	89.95		
GX Turbo/F01 Software; Apple II	59.95		
GX Turbo/V01 Software; VIC-20	89.95		
CP-7/A01 Catpack 757 soft; Apple II	54.95		
CP-7/C01 Catpack 757 soft; C-64/128	79.95		
CP-7/V01 Catpack 757 soft; VIC-20	79.95		
HF-LINK-7 Software; 8-bit Atari/orig 757	109.95		
FTV-700 Transverter w/no module*	175.00	156 ⁹⁵	
2M/FTV 2m module* only	189.00	169 ⁹⁵	
6M/FTV 6m module* only	139.00	124 ⁹⁵	
70 cm/FTV 430 module* only	255.00	228 ⁹⁵	

FT-980 9-band CAT Xcvr/SW Rcvr	1795.00	1295	
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SP-980 Speaker w/audio filter	99.95		
SP-980P Speaker/patch	99.95		
XF-8.9HC 600 Hz CW filter (1st IF)	50.00		
XF455.8MCN 300 Hz CW filter (2nd IF)	59.95		
KY-ONE Keyer unit	50.00		
MD-1B8 Desk microphone	99.95		
MH-1B8 Mobile microphone	24.95		
FIF-65 Computer interface; Apple IIe	69.95		
FIF-80 Computer interface; NEC PC-8001	119.95	109 ⁹⁵	
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
HF-LINK-9 Software for 8-bit Atari	109.95		
FRB-1 External relay box	20.00		
FT-757GX 9-band CAT Xcvr/SW Rcvr/mic D	995.00	789 ⁹⁵	
FT-757GX Mk II 9-band CAT Xcvr/SW Rcvr/mic	1079.95	929 ⁹⁵	
FP-757HD Heavy duty supply/fan/spkr	249.95	224 ⁹⁵	
FP-757GX Compact power supply	235.00	212 ⁹⁵	
FP-700 Power supply	D 209.95	189 ⁹⁵	
FC-757AT Auto antenna tuner w/memory	359.95	329 ⁹⁵	
FAS-1-4R Remote antenna selector	99.95		
SP-102 Speaker w/audio filter	99.95		
SP-102P Speaker/patch	99.95		
MD-1B8 Desk microphone	99.95		
MH-1B8 Extra mobile microphone	24.95		
FIF-65A Computer interface; Apple II	59.95		
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
GX Turbo/C01 Software; C-64/128	89.95		
GX Turbo/F01 Software; Apple II	59.95		
GX Turbo/V01 Software; VIC-20	89.95		
CP-7/A01 Catpack 757 soft; Apple II	54.95		
CP-7/C01 Catpack 757 soft; C-64/128	79.95		
CP-7/V01 Catpack 757 soft; VIC-20	79.95		
HF-LINK-7 Software; 8-bit Atari/orig 757	109.95		
FTV-700 Transverter w/no module*	175.00	156 ⁹⁵	
2M/FTV 2m module* only	189.00	169 ⁹⁵	
6M/FTV 6m module* only	139.00	124 ⁹⁵	
70 cm/FTV 430 module* only	255.00	228 ⁹⁵	

FT-757GX 9-band CAT Xcvr/SW Rcvr/mic D	995.00	789 ⁹⁵	
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FT-757GX Mk II 9-band CAT Xcvr/SW Rcvr/mic	1079.95	929 ⁹⁵	
FP-757HD Heavy duty supply/fan/spkr	249.95	224 ⁹⁵	
FP-757GX Compact power supply	235.00	212 ⁹⁵	
FP-700 Power supply	D 209.95	189 ⁹⁵	
FC-757AT Auto antenna tuner w/memory	359.95	329 ⁹⁵	
FAS-1-4R Remote antenna selector	99.95		
SP-102 Speaker w/audio filter	99.95		
SP-102P Speaker/patch	99.95		
MD-1B8 Desk microphone	99.95		
MH-1B8 Extra mobile microphone	24.95		
FIF-65A Computer interface; Apple II	59.95		
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
GX Turbo/C01 Software; C-64/128	89.95		
GX Turbo/F01 Software; Apple II	59.95		
GX Turbo/V01 Software; VIC-20	89.95		
CP-7/A01 Catpack 757 soft; Apple II	54.95		
CP-7/C01 Catpack 757 soft; C-64/128	79.95		
CP-7/V01 Catpack 757 soft; VIC-20	79.95		
HF-LINK-7 Software; 8-bit Atari/orig 757	109.95		
FTV-700 Transverter w/no module*	175.00	156 ⁹⁵	
2M/FTV 2m module* only	189.00	169 ⁹⁵	
6M/FTV 6m module* only	139.00	124 ⁹⁵	
70 cm/FTV 430 module* only	255.00	228 ⁹⁵	

FT-757GX 9-band CAT Xcvr/SW Rcvr/mic D	995.00	789 ⁹⁵	
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FX Turbo/C01 Software; C-64/128	89.95		
FX Turbo/F01 Software; Apple II	59.95		
FX Turbo/V01 Software; VIC-20	89.95		
CP-7/A01 Catpack 757 soft; Apple II	54.95		
CP-7/C01 Catpack 757 soft; C-64/128	79.95		
CP-7/V01 Catpack 757 soft; VIC-20	79.95		
HF-LINK-7 Software; 8-bit Atari/orig 757	109.95		
FTV-700 Transverter w/no module*	175.00	156 ⁹⁵	
2M/FTV 2m module* only	189.00	169 ⁹⁵	
6M/FTV 6m module* only	139.00	124 ⁹⁵	
70 cm/FTV 430 module* only	255.00	228 ⁹⁵	
*Xvtr will accept only one module at a time			
FRB-757 External relay box	10.00		
MMB-20 Mobile mount	25.95		

HF MANPACK TRANSCEIVER (†Special Order Only)

FT-70G† 10w HF manpack Xcvr w/battery	1069.95	969 ⁹⁵	
FNB-70† Extra 12v 4 amp-hour nicad	299.95	249 ⁹⁵	
NC-70† Nicad battery charger/base supply	259.95	199 ⁹⁵	
CSC-70† Canvas carrying case	89.95		
FC-70M† Manual antenna tuner	199.95	169 ⁹⁵	
FC-70P† Preset antenna tuner	199.95	169 ⁹⁵	
RSL-70† Whip antenna for FC-70P	27.95		
MH-17† Speaker/mic	31.95		
YA-70† Tripod antenna	269.95	249 ⁹⁵	
YH-70† Telephone-type handset	59.95		

Accessory for FT-77

FV-700DM Memory/scan VFO	Dm\$199.00	149 ⁹⁵	
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YAESU - Continued

Accessories for FT-902DM/101ZD		Reg	Sale
FA-9 Fan for FT-101/101ZD series	\$ 22.00		
XF-8.9HCM 450 Hz CW filter	Dv 50.00		
YE-7A Hand microphone for FT-101ZD	17.95		
Accessory for FT-107M		Reg	Sale
FV-107 Remote VFO for FT-107M	Dm\$150.00	69 ⁹⁵	
Accessories for FT-102		Reg	Sale
AM/FM-102 AM & FM module	Dm\$ 59.00		
XF-8.2HC 600 Hz CW filter (1st IF) Dmwfvcv	40.00	29 ⁹⁵	
XF-8.2HCN 300 Hz CW filter (1st IF) Dmwfvcv	40.00	29 ⁹⁵	
XF-455C 500 Hz CW filter (2nd IF) .. Dmwfvcv	60.00	49 ⁹⁵	
XF-455CN 270 Hz CW filter (2nd IF) Dmwfvcv	60.00	49 ⁹⁵	
FL-7000 Solid state amp w/auto ant tuner	1895.00	1589	
Note: Cable for FT-757GX/II supplied			
E-767 Cable for FL-7000 w/FT-767GX	10.00		
E-980 Cable for FL-7000 w/FT-980	10.00		
DC-7700 DC kit for FRG-7700	Dm 8.00	4 ⁹⁵	
MU-7700 Memory unit for FRG-7700 .. Dm	139.00	99 ⁹⁵	
FRV-7700F 118-130, 150-170MHz conv; 7700 Dm	109.00	59 ⁹⁵	
FRG-8800 150 KHz-29.999 MHz SW receiver	699.95	629 ⁹⁵	
FRA-7700 Indoor active receive ant	59.95		
FRT-7700 Antenna tuner	64.95		
FRV-8800 118-174 MHz VHF converter	129.95	109 ⁹⁵	
FIF-232C Interface; VIC-20/TI/most RS-232	79.95		
SP-102 Speaker w/audio filter	99.95		
FF-5 500 KHz low-pass filter (for VLF)	20.00		
DC-8800 DC kit for FRG-8800	3.50		
FM-W/8800 FM-wide kit for FRG-8800	20.00		
FRG-9600 60-905 MHz receiver	679.95	499 ⁹⁵	
VU-9600 NTSC video unit	25.00		
SP-55 Compact remote speaker	24.95		
CP-9/A01 Catpack 9600 soft; Apple II	79.95		
CP-9/C01 Catpack 9600 soft; C-64/128	79.95		
CP-9/V01 Catpack 9600 soft; VIC-20 ...	79.95		
YS-60 1.8-60 MHz 2kw PEP wattmeter	99.95		
YS-500 140-520 MHz 200w PEP wattmeter	89.95		
YH-55 Lo-Z headphones	21.95		
YH-77 Lightweight headphones	21.95		
YD-148 Hi/lo-Z goose-neck 4-pin desk mic □	32.95		
YE-11 600 ohm hand microphone	□ 17.95		
FF-501DX Low pass filter	34.95		
MMB-6 Universal mobile mount	Dmv 28.00	4 ⁹⁵	
QTR-1 World travel clock	32.95		

YAESU - Continued **Reg Sale**
 AD-2 50w 2m/440 duplexer; 2700RH 34.95
 FT-211RH 45w 2m FM Xcvr w/autodialer mic 459.95 **399⁹⁵**

FTS-12 Encoder/decoder
\$1⁰⁰ with purchase of FT-211RH

FTS-12 Encoder/decoder 61.95
 FT-311RM 25w 220 FM Xcvr w/autodialer mic 439.95 **389⁹⁵**
 FTS-12 Encoder/decoder 61.95
 FT-730R 10w 440 FM Xcvr w/TTP mic Dmwv 399.00 **269⁹⁵**
 FT-770RH 25w 440 FM Xcvr w/TTP mic D 479.95 **299⁹⁵**

FTS-8 Encoder/decoder
\$1⁰⁰ with purchase of FT-770RH

FTS-8 Encoder/decoder; 770RH 49.95
 FVS-1 Voice synthesizer; 770RH 31.95
 FT-711RH 35w 440 FM Xcvr w/autodialer mic 479.95 **429⁹⁵**
 FTS-12 Encoder/decoder 61.95
 FT-2311R 10w 1.2 GHz FM Xcvr/autodialer mic 559.95 **489⁹⁵**
 FTS-12 Encoder/decoder 61.95
 FSP-2 4 ohm remote speaker 24.95
 SP-55 Compact remote speaker 24.95
 S-72 Switch box for FT-720RU Dmfv 85.00 **4⁹⁵**
 YE-17 Scan mic; CPU-2500R/FT-227RA □ 17.95
 YM-48 TTP mic for FT-680R/480R/780R □ 74.95
 YM-49 Spkr/mic 230/730/290/690/790R □ 39.95
 YM-50 TTP mic; FT-290R/690R/790R □ 74.95
 YH-1 Headset w/boom mic only 26.95
 MF-1A3B Flexible visor mt mic only 26.95
 SB-1/2/3/10* Switchbox only 24.95
 *Specify SB-1 (207/208/708/404)
 *Specify SB-2 (230/730/290/690/790)
 *Specify SB-3 (202/2003)
 *SB-10 (270RH/2700RH/211/290 Mk II)

FTR-2410 2m 10w repeater (special order) 1249.95 **999⁹⁵**
 FTR-5410 440 10w repeater (special order) 1289.95 **1029**

Accessories for FT-290R/690R/790R

NC-11B Wall charger; 290/690/790R Dmf\$ 9.35 **2⁹⁵**
 NiCd 2 amp-hr 'C' nicad (uses 8) Dmfv,ea 5.95 **2⁹⁵**

Accessories for FT-208R/FT-708R

NC-7 15-hr desk charger †\$ 59.95 **49⁹⁵**
 NC-8A 15-hr/4-hr desk charger/AC ps 89.95 **79⁹⁵**
 LCC-8 Leather carrying case 34.95
 TC-22 Top cover for LCC-8 6.25
 LCS-1M/F Detachable swivel mt for LCC-8 15.00
 FBA-2 Batt sleeve for FNB-2 in NC-7/NC-8 7.95
 FBA-3 Sleeve; FT-208R/708R in NC-1A/3A 12.00
 FNB-2 Extra nicad battery pack 39.95
 NC-9B Extra 15-hr wall charger 12.95
 MMB-10 Mobile bkt for HT & PA-3 15.00
 PA-3 Mobile adapter & charger 39.95
 WB-3 Waterproof baggie for HTs 29.95
 YM-24A Speaker/microphone 39.95

FT-727R 5w/4.5w 2m/440FM HT/TTP/batt/cgr □wfe 479.95 **399⁹⁵**
 FT-727R **New CPU** 5w/4.5w 2m/440FM HT† 519.95 **429⁹⁵**

Note: FT-727R uses most 09-series accessories

FT-209RH 5w 2m FM HT/TTP/batt/cgr † 379.95 **299⁹⁵**
 FT-109RH 5w 220 FM HT/TTP/batt/cgr ... 379.95 **309⁹⁵**
 FT-709R 4w 440 FM HT/TTP/batt/cgr .. † 379.95 **269⁹⁵**
 FT-203R/TTP 2.5w 2m HT/batt/cgr/TPDmwc 259.95 **199⁹⁵**

FTS-7 Encoder/decoder
\$29⁹⁵ with purchase of FT-203R/TTP

YAESU - Continued **Reg Sale**

Accessories for 09-series/03-series

FBA-5 Alkaline battery holder\$ 14.95
 FBA-5A Alkaline batt holder for FT-727R ... 14.95
 FNB-3 425ma 10.8v batt (comes w/03-series) 49.95
 FNB-3A 425ma 10.8v batt for FT-727R 49.95
 FNB-4 500ma 12v batt (comes w/09-series) 64.95
 FNB-4A 500ma 12v batt (comes w/FT-727R) 64.95
 FTS-6 Encoder/decoder; 09-series 49.95
 FTS-7 Encoder/decoder; 03-series 49.95
 FTT-3 DTMF keypad (TTP) front; 03 series D 30.00
 LCC-6 Leather case **w/top cover; 09 only** 39.95
 LCC-6A Leather case **w/top cover; 727 only** 39.95
 LCS-1M/F Detachable swivel mt; LCC-6/6A 15.00
 MH-12A2B Speaker/microphone 41.95
 MH-18A2B Compact lapel speaker/mic ... 41.95
 MMB-21 Mobile bracket 9.95
 NC-9B Wall charger for FNB-3 12.95
 NC-15 Desk quick charger/AC ps 89.95 **84⁹⁵**
 NC-18B Wall charger for FNB-4 12.95
 PA-3 Mobile adapter and charger 39.95
 TA-2 2m 19" telescoping whip ant 11.95
 WB-3 Waterproof baggie for HTs 29.95
 YH-2 VOX headset 29.95

FT-23R 2.5w 2m FM HT/batt/cgr 269.95 **239⁹¹**
 FT-23R/TTP 2.5w 2m FM HT/batt/cgr/TTP 299.95 **269⁹¹**
 FT-33R 5w 220 FM HT/batt/cgr 309.95 **279⁹¹**
 FT-33R/TTP 5w 220 FM HT/batt/cgr/TTP 339.95 **299⁹¹**
 FT-73R 2w 440 FM HT/batt/cgr 279.95 **249⁹¹**
 FT-73R/TTP 2w 440 FM HT/batt/cgr/TTP 314.95 **279⁹¹**

Accessories for FT-23R/73R

CLIP-1 Belt clip\$ 5.99
 CSC-22 Soft case for FNB-9/FBA-9 12.95
 CSC-23 Soft case for FNB-10/FBA-10 12.95
 CSC-24 Soft case for FNB-11 12.95
 CSC-25 Soft case for FNB-10 w/TTP 12.95
 CSC-26 Soft case for FNB-11 w/TTP 12.95
 FBA-9 AAA battery holder 12.95
 FBA-10 AA battery holder 12.95
 FNB-9 200ma 7.2v nicad battery 39.95
 FNB-10 600ma 7.2v batt (comes w/23R/73R) 41.95
 FNB-11 600ma 12v (5w) nicad battery 67.95
 FNB-12 500ma 12v batt (comes w/33R) 59.95
 FTS-12 Encoder/decoder 61.95
 FTT-4 DTMF (TTP) unit 54.95
 LCC-28 Leather case; non-TTP/FNB-12 or smaller 39.95
 LCC-28S/M As above, with swivel mt 59.95
 LCC-28/TTP Leather case; TTP/FNB-12 or smaller TBA
 LCC-28S/M/TTP As above, with swivel mt TBA
 MH-12A2B Speaker/microphone 41.95
 MH-18A2B Compact lapel speaker/mic ... 41.95
 MMB-32A Mobile hanger 18.95
 NC-18B Wall charger for FNB-11/12 12.95
 NC-27B Wall charger for FNB-9 12.95
 NC-28B Extra wall charger for FNB-9/10 12.95
 NC-29 Desk quick charger 84.95 **79⁹⁵**
 PA-6 Mobile DC adapter 33.95

Accessories for FT-207R/404R

FBA-1 Battery sleeve for NC-1A/3A .. Dmfcs\$ 9.75 **2⁹⁵**
 FNB-2 Extra nicad battery pack 39.95
 FTS-32E 32-tone encoder Dw 40.00 **19⁹⁵**
 NC-9B Extra 15-hr wall charger 12.95
 MMB-10 Mobile bkt for HT & PA-2 □ 15.00
 PA-2 Mobile adapter & charger Dm 43.00
 YM-24A Speaker/microphone 39.95

ZENITH

A-8477 75 ohm high-pass filter **9⁹⁵**

CLOSEOUTS

AEA **reg. Now**
 MM-2 MorseMatic keyer f\$229.95 **149⁹⁵**
ANTENNA SPECIALISTS **reg. Now**
 HM-66 Gutter mt only w/micro-plug m\$ 21.25 **4⁹⁵**
 HM-226 2m rubber ant w/TNC connector f 18.50 **2⁹⁵**
B & K **reg. Now**
 1850 520 MHz freq counter DEMO m\$572.00 **299⁹⁵**
 2805 Hand-held multimeter DEMO m 100.00 **39⁹⁵**
BUTTERNUT **reg. Now**
 SC-3000 30-512 MHz vert scanner ant ... e\$ 74.95 **59⁹⁵**
CES **reg. Now**
 217 Thin TTP, remote electronics w\$ 34.95 **19⁹⁵**
DAIWA **reg. Now**
 AC-2A Extra charger for MT-20A m 9⁹⁵
 BA-3 Extra battery for MT-20A me 29⁹⁵
 DC-1 DC battery charger for MT-20A e 6⁹⁵
EIMAC **reg. Now**
 HR-3 Heat dissipating connector\$ 17.30 **9⁹⁵**
 SK-400 Socket for 4-400A m 451.00 **149⁹⁵**
 SK-604 Tube puller m 8.65 **4⁹⁵**
 SK-612 Socket for 4CX250B m 116.00 **59⁹⁵**
 SK-650 Socket for 4CX250B m 56.50 **29⁹⁵**
 SK-700 Socket for 4CX125C m 375.00 **99⁹⁵**
HY-GAIN **reg. Now**
 563/MR5* 2m 5/8 wv tnk ant m
 *This item is labeled as a monitor antenna, but should be satisfactory for ham use.
KLM **reg. Now**
 CS-1 2m ant circularity switch m\$ 24.95 **12⁹⁵**
 PA15-40BL 2m 5-15/40w amp m 149.00 **79⁹⁵**
KENWOOD **reg. Now**
 AM-599 AM filter for R-599 m 4⁹⁵
 CK-18 WARC kit; 180S (requires dealer install) f 19⁹⁵
 CW-900/YJ-3395C CW filter for TS-900 .. f 39⁹⁵
 DF-180 Dig freq control; TS-180 m 164.00 **49⁹⁵**
 FM-599A/YF-3395F FM filter for R-599A f 49.00 **39⁹⁵**
 MB-1A Mobile mt; TR-2200 m 13.00 **2⁹⁵**
 PS-20 4.5A power supply v 77.95 **49⁹⁵**
 TR-9130 2m SSB/FM Xcvr DEMO m 529.95 **429⁹⁵**
MFJ **reg. Now**
 MFJ-74 TTY inverter for 494 keyboard ... v \$ 9.95 **6⁹⁵**
 MFJ-1233 Modem m 129.95 **29⁹⁵**
MASTERCRAFTERS **reg. Now**
 191 24-hr quartz clock m\$ 29.95 **14⁹⁵**
MIDLAND **reg. Now**
 18-950 220 % wave trunk/roof ant m\$ 31.00 **14⁹⁵**
MILLER **reg. Now**
 C-601 3' RG-58 w/PL-259s m 1⁹⁵
STANDARD **reg. Now**
 MC-3 Mobile charger m\$ 63.00 **29⁹⁵**
 Mic clip kit for LCC-2 m 5.00 **1⁹⁵**
TELEX **reg. Now**
 HFW-91 Lightweight single phone m\$ 9.00 **2⁹⁵**
 HFY-91 Lightweight single phone m 9.00 **2⁹⁵**
TEN-TEC **reg. Now**
 280 18A power supply w\$169.00 **129⁹⁵**
 560 Corsair Xcvr wf1169.00 **899⁹⁵**
TOSHIBA **reg. Now**
 V-9035 Portable Beta VCR mv 369⁹⁵
YAESU **reg. Now**
 Battery holder for FRG-7 mf\$ 3.85 **1⁹⁵**
 DC cord for FRG-7 m 1⁹⁵
 FL-2010 2m 10w amplifier w 99.00 **69⁹⁵**
 FT-203R 2m FM HT DEMO m 219.00 **169⁹⁵**
 FT-708R 440 FM HT/encoder DEMO ... m 348.95 **199⁹⁵**
 FT-720RU 10w 440 FM Xcvr f 449.00 **199⁹⁵**
 MMB-2/old model Mobile mt; FT-2 Auto f 1⁹⁵
 XF-8.9HS SSB filter v 19⁹⁵
 XF-30D FM filter for FR-101 m 40.00 **6⁹⁵**

AES® Store Locations

m = Milwaukee, WI 53216; 4828 W. Fond du Lac Ave.
w = Wickliffe, OH 44092; 28940 Euclid Ave
f = Orlando, FL 32803; 621 Commonwealth Ave
c = Clearwater, FL 34625; 1898 Drew St
v = Las Vegas, NV 89106; 1072 N. Rancho Dr
e = Chicago, IL Erickson Communications (associate)

Local Phone

(414) 442-4200
 (216) 585-7388
 (305) 894-3238
 (813) 461-4267
 (702) 647-3114
 (312) 631-5181

Nationwide

1-800-558-0411
 1-800-321-3594
 1-800-327-1917
 1-800-634-6227
 1-800-621-5802

In-State

1-800-242-5195
 1-800-362-0290
 1-800-432-9424



PHONES • SCANNERS • RADAR DETECTORS • MARINE RADIOS & Stuff

COBRA

46/49 MHz CORDLESS PHONES	Reg	Sale
CP-86S Redial/tone/pulse cordless phone D\$	89.95	79 ⁹⁵
CP-460S Full-size/2xpage/9# mem/spkrph D	199.95	149 ⁹⁵
CP-464S* Pearl/select ch/mem/intercom/spkrph	199.95	159 ⁹⁵
*20 factory rebate thru 12/31/87		
CP-470S Pearl/redial/tone/pulse/paging	99.95	89 ⁹⁵
CP-471S Pearl/redial/tone/pulse/paging	139.95	109 ⁹⁵
CP-472S Pearl/intercom/room monitor/paging	129.95	99 ⁹⁵
CP-474S* Black/select ch/mem/intercom/spkrph	199.95	159 ⁹⁵
*20 factory rebate thru 12/31/87		

WIRED PHONES

ST-401 2-piece pulse/bell/light/redial . D\$	24.95	14 ⁹⁵
ST-407 2-pc tone/pulse/bell/light/redial in pulseD	29.95	16 ⁹⁵
ST-410 2-pc tone/pulse/mem/redial/bellD	54.95	19 ⁹⁵
ST-412 As ST-410, w/2-line capability/hold D	69.95	39 ⁹⁵
ST-500 40 mem tone/pulse wall/desk phoneD	49.95	29 ⁹⁵
ST-600 Tone/pulse/mem/hold/flash/spkrph/ringer D	69.95	44 ⁹⁵
ST-660 As ST-610, executive style, cld # display D	99.95	59 ⁹⁵
ST-662 As ST-660, 2-line capability, conference D	129.95	79 ⁹⁵
ST-510* Tone/pulse phone	22.95	19 ⁹⁵
*5\$ factory rebate thru 12/31/87		
ST-512* 9 mem tone/pulse phone	27.95	22 ⁹⁵
*5\$ factory rebate thru 12/31/87		
ST-514 Tone/pulse phone w/elec ringer	32.95	26 ⁹⁵

TELEPHONE ANSWERING MACHINES

AN-8300 Telephone answering machine D	99.95	59 ⁹⁵
AN-8400 Answering machine w/remote D	129.95	79 ⁹⁵
AN-8408 Consists of AN-8400 w/ST-408 phoneD	149.95	89 ⁹⁵
AN-8500 Ans machine w/remote & VOX D	139.95	69 ⁹⁵
AN-8550 Ans machine w/remote & VOX D	134.95	79 ⁹⁵
AN-8600 Dlx machine w/remote & VOX D	164.95	69 ⁹⁵
AN-8700 Super dlx w/remote & VOX . D	194.95	99 ⁹⁵
ST-408 Wired phone for use w/ans machineD	29.95	19 ⁹⁵
AN-8510* Answering machine w/VOX . . .	79.95	64 ⁹⁵
*5\$ factory rebate thru 12/31/87		
AN-8511 Ans machine w/personal memo	89.95	72 ⁹⁵
AN-8512* Ans machine w/remote & VOX	99.95	79 ⁹⁵
*10 factory rebate thru 12/31/87		
AN-8514* Ans machine w/remote/VOX/ph	119.95	99 ⁹⁵
*10 factory rebate thru 12/31/87		
AN-8516 Ans machine w/recordable chip	149.95	119 ⁹⁵
AN-8518 Machine w/rec chip/9# mem ph	189.95	149 ⁹⁵
AN-8522 Ans machine w/20# mem phone	199.95	169 ⁹⁵

SCANNERS & MONITORS

COBRA

SR-900 16 ch programmable scanner	\$149.95	109 ⁹⁵
SR-925 16 ch prog scanner w/aircraft	239.95	164 ⁹⁵
SR-10 10 ch programmable pocket scanner	189.95	129 ⁹⁵
SR-12 16 ch prog pocket scanner w/aircraft	279.95	199 ⁹⁵
CA-22 AC adapt; SR-10/12 (comes w/12)	10.50	
CC-10 Carrying case for SR-10	8.00	
BP-10 Battery pack for SR-10	40.00	
BP-12 Extra batt pack; SR-12 (2 needed)	15.00	
VPC-22 Vehicle power cord for SR-10/12	8.00	

REGENCY

MX-3000 30 ch prog mobile scanner . . . D\$	349.95	199 ⁹⁵
R-1060 10ch AC only prog scanner . . Dmw	149.95	79 ⁹⁵
Z-30 30 ch programmable scanner Dmwf	279.95	129 ⁹⁵
Z-60 50ch prog scanner/10ch FM broadcast D	299.95	169 ⁹⁵
TS-1 35 ch Turbo-Scan w/aircraft	359.95	259 ⁹⁵
TS-2 75 ch Turbo-Scan w/air/800 MHz . . .	499.95	359 ⁹⁵
INF-1 Pre-programmed scanner	369.95	199 ⁹⁵
INF-2 Pre-prog/50 ch scanner	459.95	239 ⁹⁵
INF-3 Pre-prog/60 ch scanner	349.95	229 ⁹⁵
INF-5 Pre-programmed scanner	329.95	199 ⁹⁵
Z-45 45ch prog scanner/aircraft	259.95	179 ⁹⁵
R-1090 45 ch programmable scanner . . .	239.95	129 ⁹⁵
R-1080 30 ch programmable scanner . . .	199.95	119 ⁹⁵
R-1075 15 ch programmable scanner . . .	179.95	109 ⁹⁵
R-1070 10 ch programmable scanner . . .	159.95	99 ⁹⁵
R-806 10 ch hi/low/UHF xtal scanner . . .	109.95	89 ⁹⁵
R-11L Single ch low band xtal monitor . . .	99.95	79 ⁹⁵
R-1H Single ch high band xtal monitor . . .	99.95	79 ⁹⁵
R-1U Single ch UHF xtal monitor	99.95	79 ⁹⁵
HX-750 6 ch xtal pocket scanner w/aircraft Dm	179.95	79 ⁹⁵
HX-2000 20ch aircraft/H/U/800MHz pocket Dmf	569.95	249 ⁹⁵
HX-1500 55 ch pocket w/air (no batts or cgr)†	369.95	219 ⁹⁵
MA-257 Cig cord; HX-1000/1200/1500	20.67	
MA-518 Wall charger for HX-1500	17.71	

REGENCY - continued

MA-549 Desk charger for HX-1500	92.50	79 ⁹⁵
MA-553 Carrying case for HX-1500	19.95	
MA-256 Desk charger; HX-1000/1200 Dmwe	92.50	79 ⁹⁵
MA-917 Extra battery pack; HX-1000/1200	33.33	
MA-547 Magnet mt H/L/U monitor ant . . .	49.95	

UNIDEN BEARCAT

BC-151 10ch prog scanner, ac only Dmw\$	249.95	99 ⁹⁵
BC-180 16ch prog scanner w/pri, ac only Dw	249.95	119 ⁹⁵
BC-210XW 18 ch prog scanner/instant WX Dmwv	279.95	199 ⁹⁵
BC-100 16 ch prog pocket scanner . . . Dm	449.95	149 ⁹⁵
BC-145XL 16 ch prog scanner/instant WX	159.95	119 ⁹⁵
BC-175XL 16 ch prog scanner w/aircraft	249.95	169 ⁹⁵
BC-210XLT 40 ch prog scanner/air/instant WX	319.95	219 ⁹⁵
BC-580XLT 100 ch mobile prog/svc search	399.95	239 ⁹⁵
BC-800XLT 40 ch prog scanner w/800 MHz	499.95	329 ⁹⁵
BC-100XL Prog pocket scanner w/aircraft	349.95	219 ⁹⁵
A-23 Extra BNC rubber ant; BC-100/XL□	6.95	
AD-100 Extra AC adapt/cgr; BC-100/XL	8.00	
B-6 Set of 6 AA nicads for BC-100/XL	19.95	
SP-64 Earphone for BC-100/XL	5.40	
BC-50XL Programmable pocket scanner . . .	189.95	129 ⁹⁵
AD-100 AC adapter/batt cgr for BC-50XL	8.00	
BP-50 Battery pack for BC-50XL . . . Dme	18.50	
BP-55 Heavy duty batt pack for BC-50XL	37.00	
PS-001 DC power cord; BC-50XL/100XL	4.00	
VC-001 Carrying case for BC-50XL	10.00	
BC-70XLT 20 ch prog pocket w/battery . . .	299.95	179 ⁹⁵
BC-100XLT 100 ch prog pocket w/aircraft	369.95	229 ⁹⁵
BC-200XLT 200 ch prog pocket w/800 MHz	449.95	299 ⁹⁵
BC-WA Alert 7 ch weather radio w/alert . .	49.95	39 ⁹⁵
FB-E Eastern U.S. frequency directory . . .	15.95	
FB-W Western U.S. frequency book	15.95	

ANTENNA SPECIALISTS

MONR1 H or U low profile roof mt monitor ant\$	20.50
MON-9 H & U magnet mt monitor antenna	30.50
MONR31 L/H/U gain ground plane base ant	47.50
MONR32 L/H/U low profile trunk mt mon ant	38.95

RADAR DETECTORS

COBRA

RD-2100 Super heterodyne radar detector\$	99.95	79 ⁹⁵
RD-3110 Super heterodyne radar detector	169.95	119 ⁹⁵
RD-3160 Small superhet radar detector . . .	229.95	179 ⁹⁵
RD-3170 Deluxe superhet radar detector	249.95	199 ⁹⁵
RD-4100 Super heterodyne radar detector	199.95	129 ⁹⁵
RD-5100 Remote superhet radar detector	199.95	159 ⁹⁵

FOX

Matchbox Remote Radar detector	Dm\$249.95	99 ⁹⁵
Roadstar Superhet detector	Dm	179.95
Super Fox Remote Superhet detector Dm	279.95	129 ⁹⁵
Super Trucker Superhet w/carrying case Dm	349.95	89 ⁹⁵
Vixen Superhet detector	Dm	169.95
Vixen II Superhet detector	Dm	229.95
XK 2-band radar detector	Dm	149.95
XKMR Remote for motorcycle mount . . . Dm	199.95	59 ⁹⁵
XKRW Remote 2-band detector	Dm	179.95

MAXON

RD-1 Superhet detector	\$	99.95	79 ⁹⁵
RD-2 Superhet detector		79.95	59 ⁹⁵
RD-2A Superhet detector		79.95	69 ⁹⁵
RD-3 Superhet detector		99.95	79 ⁹⁵
RD-11 Superhet detector w/deluxe mt . . .		139.95	89 ⁹⁵
RD-21 Mini-sized radar detector		159.95	99 ⁹⁵
RD-25 Deluxe mini radar detector		179.95	109 ⁹⁵

UNIDEN

RD-35 Superhet detector	D\$139.95	69 ⁹⁵
RD-55 Superhet detector	D	189.95
RD-95 Remote superhet detector . . . Dmw	219.95	89 ⁹⁵
RD-7 Compact superhet detector	249.95	149 ⁹⁵
RD-9 Pocket sized superhet detector	269.95	169 ⁹⁵
RD-20 Superhet detector	139.95	79 ⁹⁵
RD-25 Superhet detector	139.95	79 ⁹⁵
RD-95GT Remote superhet detector	219.95	139 ⁹⁵

WHISTLER

Spectrum Superhet radar detector Dmwfe\$	299.95	129 ⁹⁵
Spectrum Remote Superhet (new model) Dm	299.95	149 ⁹⁵
WH-2 Superhet radar detector	Dmw	109.95
WH-3 Superhet radar detector	Dmwf	139.95
WH-5 Superhet radar detector	Dm	179.95
WH-5 Remote Superhet detector	Dmf	199.95

ICOM MARINE

M-12 1w 12 ch diode synth hand-held	\$439.00	269 ⁹⁵
M-2 3w synthesized hand-held	499.00	299 ⁹⁵
M-5 5w synth hand-held w/9 memories	629.00	389 ⁹⁵
CA-1 Extra flexible antenna	14.95	
CA-2 Telescoping whip antenna	14.95	
CC-12 Water resistant, floating carrying case	19.95	
CM-1/CP-1 Cig cgr; BP-3/7/8; DC cord; M-5	13.00	
CM-2/BP-2* 425ma 7.2v long life batt; all	47.00	
CM-3/BP-3 Extra 250ma 8.4v batt; all HTs	37.50	
CM-4/BP-4 Alkaline battery case; all HTs	15.25	
CM-5/BP-5* 425ma 10.8v hi pwr batt; all	58.50	
*CM/BC-35 required to charge CM/BP-2/5		
CM-7/BP-7 425ma 13.2v 5w batt; M-5 only	74.25	
CM-8/BP-8 800ma 8.4v long life batt; all HTs	74.25	
CM-9/HM-9 Speaker/microphone; all HTs	47.00	
CM-12 Alkaline batt case for 10 AA's . . .	24.95	
CM-16U/BC-16U Wall charger; BP-7/8 only	20.25	
CM-25U/BC-25U Extra wall cgr; BP-3 only	16.25	
CM-35/BC-35 Drop-in rapid cgr; all batts	74.50	
CM-60A/BC-60A 6 position gang cgr; std batts	475.00	429 ⁹⁵
CP-10 Battery separation cable w/clip	22.50	
DM-1/DC-1 DC op module; all except M-5	23.25	
HS-10 Headset for all hand-helds	23.25	
HS-10SA VOX unit for M-5 only	23.25	
HS-10SB PTT switchbox for headset	23.25	
LC-02AT Leather case; M-5 w/BP-7 or 8	54.50	
LC-11 Vinyl case for M-5 w/BP-3	20.50	
LC-14 Vinyl case for M-5 w/BP-7 or 8	20.50	
LC-M12/5 Leather case; all except M-5	59.95	
MB-16D Mobile mtg bkt for all HTs	24.50	
ML-25 20w VHF amplifier	210.00	179 ⁹⁵
RB-1 Vinyl waterproof radio bag	34.95	
M-8 Micro marine hand-held Xcvr	549.00	349 ⁹⁵
AD-10 Charger adapter for BC-35	12.99	
AD-11 Batt pack adapt; BP-3/4/5/8	10.00	
CM-25/BC-25U Extra wall cgr; BP-21/22	16.25	
CM-50/BC-50 Desk quick cgr; not for BP-20	74.50	
CM-20/BP-20 Alkaline battery case	15.25	
CM-21/BP-21 Small 120 ma 7.2v battery	33.99	
CM-23/BP-23 600ma 8.4v long life battery	47.00	
CM-24/BP-24 600ma 10.8v 2.5w battery	49.00	
CM-1/CP-1 Cig lighter plug and cord . . .	13.00	
CM-9/HM-9 Speaker/microphone	47.00	
HS-10 Headset	23.25	
HS-10SA VOX unit	23.25	
HS-10SB PTT switchbox	23.25	
M-55 25w synthesized mobile marine XcvrD	529.00	329 ⁹⁵
M-80 25w synth mobile marine Xcvr Dmw	889.00	499 ⁹⁵
M-55B 25w synth mobile marine Xcvr	579.00	379 ⁹⁵
M-100 25w synth mobile marine Xcvr	899.00	549 ⁹⁵

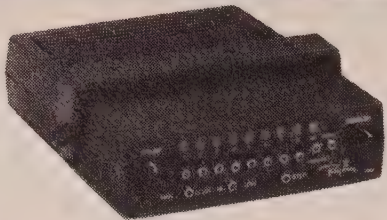
REGENCY MARINE

MT-5100 25w 55ch VHF marine Xcvr . . .	†\$329.00	169 ⁹⁵
MT-5300 25w 55ch VHF marine Xcvr . . .	†	369.00
MT-5500XL 25w 55ch VHF marine Xcvr	†	419.00
MT-6500 25w 55ch VHF marine Xcvr w/scan†	469.00	249 ⁹⁵
NC-7200 25w DF scan Xcvr w/DF rcv ant†	1669.00	899 ⁹⁵
MA-256 Desk charger for MT-1000/900Dmwe	92.50	79 ⁹⁵
CR-500 Electronic chart recorder	Dm	399.00
DI-480T Transom mt transducer 480' depth indicator	329.00	189 ⁹⁵
DI-480TH Thru hull transducer 480' depth indicator	369.00	219 ⁹⁵
DI-540T Elec depth/speed/log/water temp	449.00	249 ⁹⁵
HA-440SP 40w hailer/siren/fog horn w/spkr	279.00	179 ⁹⁵
MS-3000 Marine stereo system w/cassette Dmw	349.00	129 ⁹⁵
MS-5000 Deluxe marine stereo w/cassette Dw	499.00	249 ⁹⁵
SPK-50 3-way marine spkr system pair, Dm	129.00	69 ⁹⁵
SPK-69 3-way marine speakers pair, Dmw	89.00	49 ⁹⁵

LARSEN MARINE ANTENNAS

PO-150-SBK 4' 3db mast mount antenna \$	50.67	39 ⁹⁵
SHAKESPEARE MARINE ANTS		
399-1 6db, 9' 6" 2-piece ant, less mt	\$146.95	79 ⁹⁵
209 Swivel mount & upper bracket	56.95	29 ⁹⁵
497 6db, 8' ant, less mt	65.95	39 ⁹⁵
5202 6db ant w/chrome ferrule, less mt	99.95	59 ⁹⁵
5206-C Economy 8' ant w/chrome ferrule, no mt	48.95	29 ⁹⁵
366H Chrome zamac ratchet mount	49.95	29 ⁹⁵
495 White plastic lift & lay mount	19.95	14 ⁹⁵
420 3db, 5' ant w/fold-down mount	71.95	39 ⁹⁵
420-M-2 3db, 5' mast mount antenna	88.95	49 ⁹⁵
5204-8 Combination CB/VHF marine 8' ant	144.95	79 ⁹⁵
390 23' 2-piece SSB ant, less mt	141.95	89 ⁹⁵
210 Swivel mt & upper bkt for 390	57.95	39 ⁹⁵

REGENCY SCANNERS

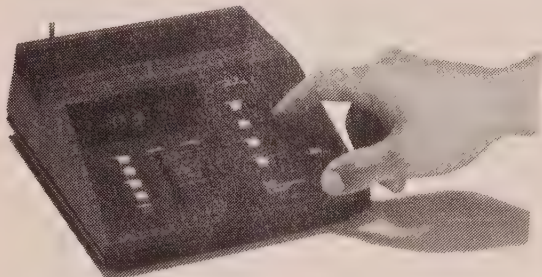


R-806 Crystal controlled Mobile/Home scanner. 8 channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470, 470-512 MHz. LED channel indicators, programmable priority, lockout, dual scan speeds, AC/DC. Mobile mounting bracket, AC and DC cords, telescoping antenna. 1½" h × 5¾" w × 6¾" d **\$89⁹⁵**



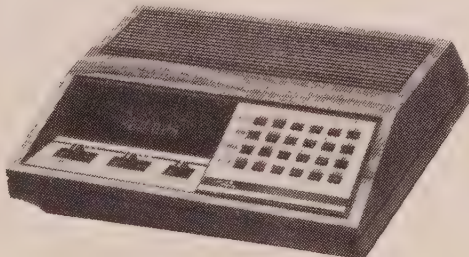
R-1070 Automatic Scanner. Receives over 15,000 frequencies. Programmable, 10 channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470, 470-512 MHz. Memory preprogrammed with 10 popular frequencies. Dual level fluorescent digital display flashes messages to aid programming. Automatic or manual scan, search, lockout, non-volatile memory, special test key. AC cord, telescoping antenna. 117V. 3" h × 7½" w × 9" d **\$99⁹⁵**

R-1075 Same features as R-1070 above but 15 channels, 8 bands: 30-50, 144-148, 148-174, 440-450, 450-470, 470-512 MHz. Preprogrammed with 15 popular frequencies ... **\$109⁹⁵**



R-1080 Automatic Scanner. Receives over 15,000 frequencies. Programmable, 30 channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470, 470-512 MHz. Memory is preprogrammed with 30 popular frequencies. Fluorescent digital display, search or scan, bank scanning, weather scan, priority control, memory back-up, lockout, manual control, dual scan speeds. 117 VAC, telescoping antenna. 3" h × 7½" w × 9" d **\$119⁹⁵**

R-1090 Automatic Scanner. Same features as R-1080 above but 45 channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470, 470-512 MHz. Memory is preprogrammed with 45 popular frequencies. 3" h × 7½" w × 9" d **\$129⁹⁵**



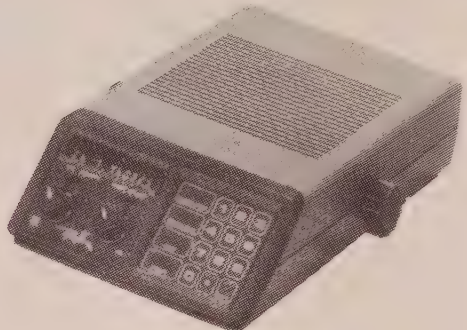
Z-30 Automatic Scanner. Programmable, 30 Channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470 and 470-512 MHz. Preprogrammed with 30 of the most popular frequencies. Search, scan, priority control, memory back-up, fluorescent display, channel lockout, scan delay, display messages, alarm clock, AC/DC. 10¾" w × 2½" h × 8¾" d **\$129⁹⁵**



Z-45 Automatic Scanner. Same features as Z-30 above but 45 Channels, 7 bands: 30-50, 118-136, 144-148, 148-174, 440-450, 450-470 and 470-512 MHz. Preprogrammed with 45 of the most popular frequencies. **\$179⁹⁵**



Z-60 Automatic Scanner. 60 Channels, 8 bands: 30-50, 88-108, 118-136, 144-148, 148-174, 440-450, 450-470 and 470-512 MHz. Preprogrammed with 60 of the most popular frequencies. Search and scan, priority control, memory back-up, dual level fluorescent display, lockout, scan delay, display messages, alarm clock, AC/DC. 10¾" w × 2½" h × 8¾" d **\$169⁹⁵**



MX-3000 Keyboard entry - 30 channels, 6 bands: 30-50, 144-148, 148-174, 440-450, 450-470 and 470-512 MHz. Search, scan, search and scan delay, lockout; dual scan speed, priority, display messages, battery memory back-up, AC/DC **\$199⁹⁵**



HX-1500 Handheld/Portable Scanner. Receives over 18,000 frequencies. Programmable, 55 channels, 11 bands: 29-30, 30-50, 50-54, 118-136, 136-144, 144-148, 148-174, 406-420, 440-450, 450-470 and 470-512 MHz. Preprogrammed with 55 of the most popular frequencies. Search or scan, priority control, LCD display, sealed rubber keyboard, display messages, channel lockout, scan delay, permanent memory backup, direct channel access. Runs on 8 AA batteries or optional NiCad rechargables. Belt clip, ear-phone & flex antenna **\$219⁹⁵**

COBRA SCANNERS



SR-925 Keyboard entry - 16 channels, 12 bands: 29-29.7, 29.7-50, 50-54, 118-135.975 Aircraft, 146-144, 144-148, 162.4-162.55 Weather, 148-174, 406-420, 420-450, 450-470, 470-512 MHz. LCD display, priority, automatic and manual scan at 5 or 16 channels/sec., limit, search, selective delay, lockout, hold key, memory protection, AC/DC. 10¼" w × 2¼" h × 6½" **\$164⁹⁵**

SR-900 Keyboard entry - 16 channels, 11 bands: 29-29.7, 29.7-50, 50-54, 146-144, 144-148, 162.4-162.55 Weather, 148-174, 406-420, 420-450, 450-470, 470-512 MHz. LED display, priority, lockout, review, automatic and manual scan, scan delay, memory protection, AC/DC. 9½" w × 2½" d × 7½" h **\$109⁹⁵**



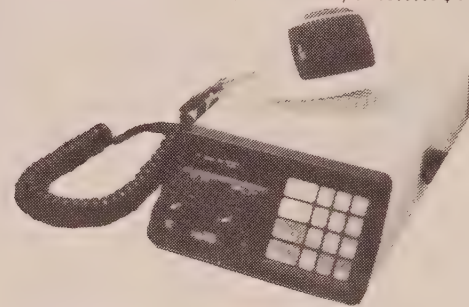
SR-10 Handheld scanner. Keyboard entry - 10 channels, 11 bands, same coverage and basic features as SR-600 above. Powered by from 5 AA batteries, optional Nicad rechargeable pack, or optional AC adaptor. 2½" w × 1¾" d × 7" h ... **\$129⁹⁵**

SR-12 Handheld scanner. Keyboard entry - 16 channels, 9 bands: 30-50, 118-135.975 Aircraft, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. Features similar to SR-925 above. Powered by 6 AA NiCad rechargeable batteries (included). 3" w × 1½" d × 7" h **\$199⁹⁵**

REGENCY MARINE



REGENCY MT-5100 Synthesized VHF marine transceiver, no crystals required. Covers all U.S. and International marine channels and 10 weather channels. 25 or 1W switch. Slew Up and Slew Down controls to step through channels. Large, easy to read LED display. Transmit and Power indicators. Automatically reverts to Channel 16 when turned on. Reversible mount for bulkhead or console. 10.7" d × 6.5" w × 2.6" h, 5 lbs. **\$169⁹⁵**



MT-5500XL 25 Watt, all channel scanning transceiver. Touch-entry, backlit keyboard, 25 or 1 Watt output, programmable priority, U.S. and International marine channels **\$229⁹⁵**



MT-6500 25 Watt, all channel programmable scanning transceiver. Touch entry, backlit keyboard, 10 private channels, 10 weather channels, U.S. and International frequencies, digital clock, dual priority, reversible mount. **\$249⁹⁵**



NC-7200 25 Watt, all channel Direction Finder scanning transceiver. Touch-entry, backlit keyboard, 25 or 1 Watt output, priority; U.S. or International Marine channels. Comes with Direction Finder Receive Antenna and reversible mount ... **\$899⁹⁵**

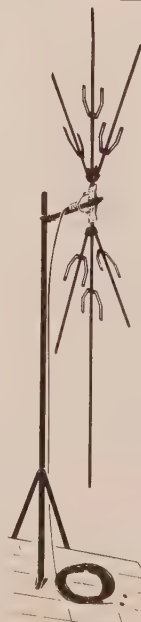
Channel Master Monitenna 4-Band Scanner Antenna

Most Scanners come equipped with small telescoping antennas and are capable of only receiving local signals within a 5 to 15 mile range. With an external antenna, such as a Monitenna, it is possible to greatly increase that range depending on terrain, etc.

The Monitenna features separate pretuned receiving diodes for more efficient reception of the LOW, HIGH, UHF and Weather bands. Made of high-strength aluminum, and completely weather protected. Comes and pretuned with a 50 ft. length of coaxial cable with Motorola plug.

5094 Monitenna with coax, only ... **\$299⁹⁵**

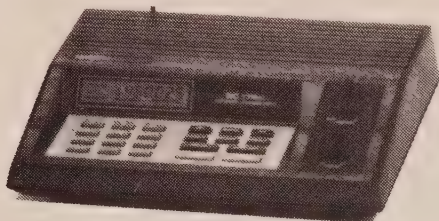
5095 Monitenna Kit Everything for a complete rooftop installation. Monitenna, 50 ft. coaxial cable/Motorola plug, 5 ft. tri-mast mount, 2½ extension, standouts, double headed nails and sealing washers... **\$375⁰⁰**



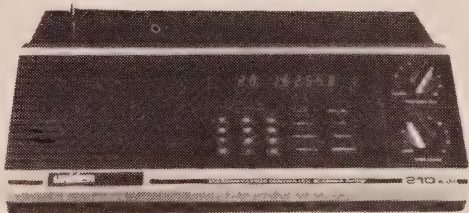
UNIDEN Bearcat SCANNERS



Bearcat 145XL Keyboard programmable, 16 channels, 10 bands and weather: 29-29.7, 29.7-50, 50-54, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. 2-digit LED channel display. Review, delay, priority, memory back-up, channel lockout, direct channel access, weather search, delay, track tuning, 117 VAC. 9 1/2" w x 7 1/2" d x 2 1/2" h, 7 3/4 lbs **\$119⁹⁵**



Bearcat 175XL Keyboard programmable, 16 channels, 11 bands including aircraft and weather: 29-29.7, 29.7-50, 50-54, 118-136, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. Liquid Crystal Display, automatic search, weather search, dual scan speeds, review, delay, priority, memory back-up, channel lockout, direct channel access, delay, track tuning, 117 VAC. 9 1/2" w x 7 1/2" d x 2 1/2" h, 7 3/4 lbs **\$169⁹⁵**

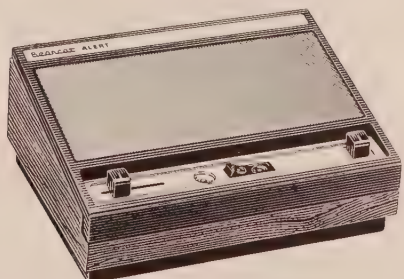


Bearcat 210XW Keyboard programmable, 20 channels, 8 bands: 30-50, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. Automatic search and instant weather search. Fluorescent display, direct channel access, dual scan speeds, selective scan delay, channel lockout, track tuning, automatic squelch, AC/DC. 9 1/4" w x 4 1/2" h x 12 1/2" d **\$199⁹⁵**

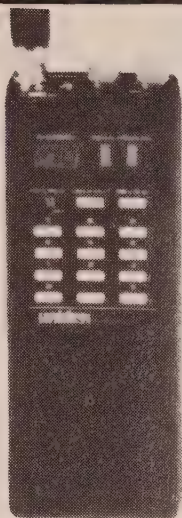
Bearcat 210XLT (latest model) 40 channel programmable scanner with aircraft and instant weather **\$219⁹⁵**



Bearcat 800XLT Keyboard programmable, 40 channels, 12 bands. Covers: 29-29.7, 29.7-50, 50-54, 118-136, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470, 470-512, 806-912 MHz. Fluorescent display, direct channel access, instant weather, priority, track tuning, scan delay, automatic search and squelch, lockout, two telescoping antennas, 117 VAC or 13.8 VDC with opt. DC cord. 9 1/4" d x 4 1/2" h x 12 1/2" w, 7 lbs, 2 oz ... **\$329⁹⁵**

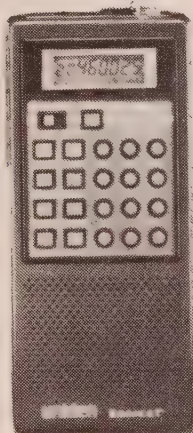


Bearcat BC-WA ALERT Weather information 24 hours a day on any of seven National Weather Service frequencies. During a weather emergency, the Service broadcasts a tone signal which will activate the ALERT from 'standby' to produce a warning tone and flashing signal. If power fails, unit switches from AC line to 9V battery operation 7" w x 2" h x 5" d **\$39⁹⁵**

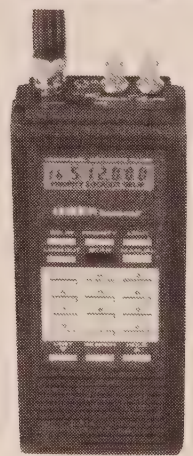


uniden Bearcat

Bearcat 50XL Programmable hand-held scanner. 10 channels/10 bands: 29-29.7, 29.7-50, 50-54, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. 2-digit Liquid Crystal Display, review, lockout, delay, direct channel access, track tuning, battery-low indicator, memory back-up, flexible antenna. Uses 4 standard or 5 "AA" Nicad batteries. 2 5/8" w x 1 1/2" d x 6 3/4" h **\$129⁹⁵**



Bearcat 70XLT Programmable hand held scanner. 20 channels/10 bands: 29-29.7, 29.7-50, 50-54, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470, and 470-512 MHz. Illuminated LCD display, priority, lockout, delay, automatic and manual search, track tuning, direct channel access. AC/DC - runs on built-in rechargeable Nicad battery or 120 VAC with charger/adaptor included. Flexible ant. and earphone. 6" h x 1" d x 2 3/4" w .. **\$179⁹⁵**

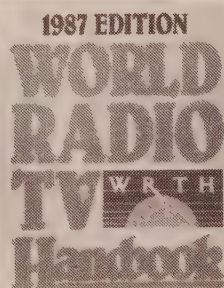


Bearcat 100XL Programmable hand held scanner. 16 channels/9 bands: 30-50, 118-136, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. Lighted Liquid Crystal Display, automatic search, priority, review, lockout, scan delay, direct channel access, track tuning, auto. squelch, battery-low indicator, memory back-up, flexible antenna. Nicad batteries & AC adaptor/charger. 2 7/8" w x 1 3/8" d x 7 1/2" h **\$219⁹⁵**

Betty Bearcat Frequency Directory Exclusive! Frequencies by Listening Area!

- Police • Fire • Ambulance • Government
- Transportation • Plus many others!

Includes: Frequency cross reference section; FCC frequency allocation chart; Log Pages; Reference data: codes, systems, and more! Specify Eastern or Western U.S. edition **\$15⁹⁵**



Comprehensive country-by-country listings of long, medium, and short wave broadcasts by frequency, time and language. Special features include - short wave receiver test reports, world wide broadcasts in English, broadcaster addresses and personnel, and maps of principle transmitter sites **\$19⁹⁵**

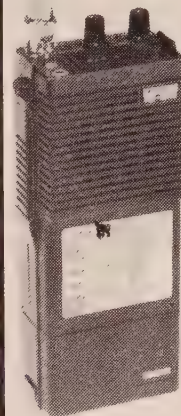
WORLD RADIO TV HANDBOOK

1987 Edition - the authoritative directory of international radio and television. A comprehensive country-by-country listing of long, medium, and SW broadcasters by frequency, time and language. Special features include - short wave receiver test reports, world wide broadcasts in English, broadcaster addresses and personnel, and maps of principle transmitter sites **\$19⁹⁵**

ICOM MARINE



ICOM M-80 25 Watt, frequency synthesized VHF Marine transmitter with 78 channel capacity. Enter any 10 channels in memory for quick access; monitor channel 16 and any other selected channel simultaneously. Three separate scanning modes; scan all channels, weather channels, or those entered into the memory function. 3" h x 8 1/8" w x 3 3/8" d **\$499⁹⁵**

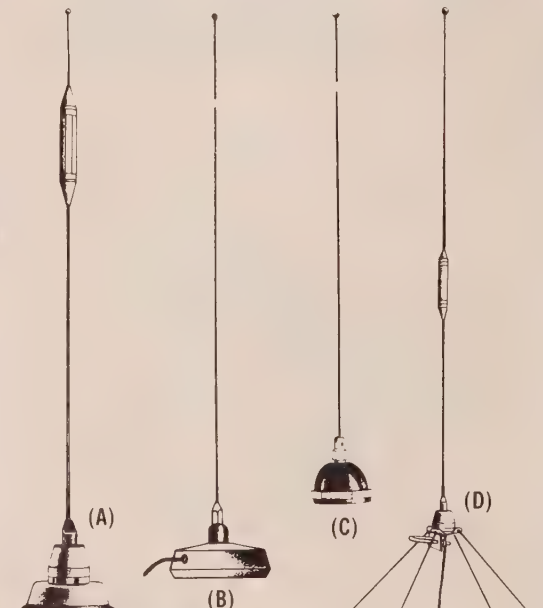


ICOM M2 3 1/2 Watt frequency synthesized VHF Marine hand-held radio with 78 channel capacity. Capable of up to 5 1/2 Watts with optional battery pack. With nicad pak, wall charger, flexible antenna, wrist strap, belt clip and earphone. 6" h x 2 1/2" x 1 3/4" d, 1.4 lbs **\$299⁹⁵**

ICOM M-12 (not shown) 12 channel synthesized VHF Marine hand-held. Versatile, uses accessories similar to IC-series ham models. With Nicad pak, wall chgr, flex antenna, wrist strap, belt clip, earphone. 6 1/2" h x 2 1/2" x 1 1/2" d, 1 1/2 lbs **\$269⁹⁵**

ICOM M5 (not shown) Digital VHF marine hand-held. 5.5 Watts output, covers all international and U.S. channels. Three scanning systems: 10 memory, 10 weather or all channels plus "Sea Watch" for simultaneous monitoring of channel-16 and one other channel of your choice. Programmable for future computerized marine telephone use. Comes with CM-7 high voltage (10.8V) battery pack, flexible rubber antenna, belt clip, earplug and wall charger. 8 1/4" h x 2 3/4" w x 1 1/2" d, 4 lbs **\$389⁹⁵**

See Phone/Scanner Price page for list of accessories



Antenna Specialists Monitor Antennas Increase Scanner Range!

MONR32 (A) Mobile no hole, trunk lid mt. antenna for reception of 30-50, 150-174, and 450-470 MHz bands. 17' cable .. **\$38⁹⁵**

MON-9 (B) Mobile magnetic mount 1/4-wave antenna for reception of 30-50 or 450-512 MHz band. 10' cable ... **\$30⁵⁰**

MONR1 (C) Mobile roof/deck mt. 1/4-wave antenna for 150-174 or 450-470 MHz bands. 15' cable, 3/8" hole required ... **\$20⁵⁰**

MONR31 (D) Base station antenna for reception of 30-50, 150-174, and 450-470 MHz bands. Mounts on 1" mast. **\$47⁵⁰**

New REGENCY Scanners



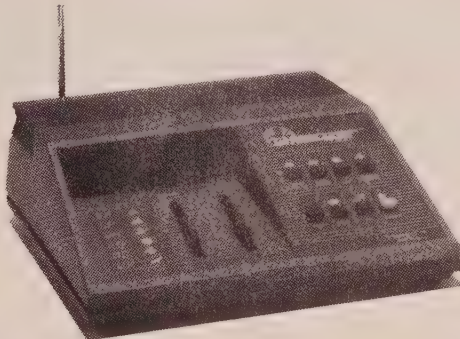
WITH
**TURBO™
SCAN**



REGENCY INF-1 The Informant™ - pre-programmed, by state, to receive police transmissions in the 36-47, 150-163, and 450-462 MHz bands, including Weather Service broadcasts. Turbo-Scan™ feature scans at 40 channels-per-second. Digital display shows state selected and type of call being received. HOLD switch locks the receiver to a preferred broadcast. CITY/HIGHWAY switch selects scanning of state police or city and county police. LOCKOUT feature keeps undesired frequencies from being scanned. Complete with DC direct and cigarette lighter cords, telescoping antenna, mounting bracket/clip, and instructions 1 3/8" h x 5" w x 6 1/2" d, 1 lb. 11-15V DC **\$199⁹⁵**



REGENCY INF-2 Features similar to INF-1 plus user selectable services (Police, Fire, Emergency, Road and Medical Services, Amateur Radio and Weather), with Weather Alert or Weather Priority. Also, AUTO SAVE, which when activated, automatically saves up to 50 active frequencies to a Select Scan List, and SELECT for scanning "saved" frequencies only **\$239⁹⁵**



REGENCY INF-5 Similar to INF-1 except for base station operation, including Fire and Medical Services selection. Easy-to-use keyboard. 7 1/2" w x 3" h x 9" d, 2 1/2 lbs. 110-130V AC **\$199⁹⁵**

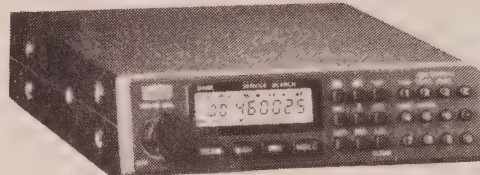


REGENCY INF-3 Similar to INF-2 but including selection of Government, Business and Information services (paging, remote broadcasts and press.). Also, a 60 channel Select Scan List. 7 1/2" w x 3" h x 9" d, 2 1/2 lbs. 110-130V AC **\$229⁹⁵**

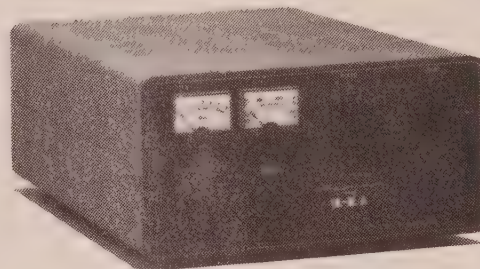
REGENCY TS-1 Mobile or Base Scanner. 35 channels, 11 bands: 29-30, 30-50, 50-54, 118-136, 136-144, 144-148, 148-175, 406-440, 440-450, 450-470, and 470-512 MHz. Fully programmable, choose from 18,000 frequencies and enter using numbered keyboard. Turbo-Scan™ feature scans 40 channels per second. Accu-Seek feature locates new frequencies with 50 CPS. search. Priority, display messages, direct channel access, fluorescent display, permanent memory backup. Telescoping antenna, AC adaptor, DC power cord, mobile mount. 5 3/4" w x 2 3/4" h x 9 1/4" d, 3 1/2 lbs. 13.8V DC or 110-130V AC **\$259⁹⁵**

TS-2 Mobile or Base Scanner. Same features as TS-1 but 75 channels in 12 bands, including 806-950 MHz. **\$359⁹⁵**

New UNIDEN Scanner



UNIDEN BC-580XLT Mobile Scanner with Service Search. 100 channels, 5-20 scanning banks and 11 bands of coverage: 29.0-29.7, 29.7-50.0, 50.0-54.0, 118-136, 136-144, 144-148, 148-174, 406-420, 420-450, 450-470 and 470-512 MHz. Fully programmable directly from keypad. Includes automatic search of aircraft, police, marine and emergency services. Automatic and manual band search, direct channel access, track tuning, weather Search, priority, lockout, scan delay. LCD display. 6 1/2" w x 1 5/8" h x 7 3/4" d, 1.2 lbs. 13.8V DC **\$239⁹⁵**



Tokyo Hy Power Labs HL-1K/A HF linear amplifier. Covers 1.8-21 MHz. SSB, CW (RTTY/SSTV/AM) Uses 2 Eimac 4CX-250B's in class AB1, grounded grid. Requires 60 to 85W drive for 500W maximum SSB/CW output (RTTY/SSTV/AM - about half of SSB/CW). 11 1/4" w x 5 1/2" h x 14 1/2" d, 40 lbs **\$949⁹⁵**

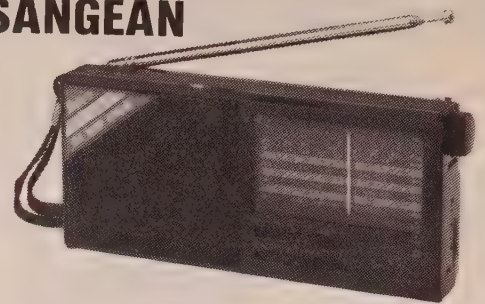


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AES® CUSTOMERS!
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changes in your address

SANGEAN



SG-792 9-band portable receiver. Covers: FM 87.5-108MHz (mono), SW1 2.30-5.20, SW2 5.85-6.20 (49m), SW3 7.10-7.50 (41m), SW4 9.45-9.90 (31m), SW5 11.45-11.08 (25m), SW6 15.10-15.55 (19m), SW7 17.45-18.06 (16m), and MW 522-1620kHz (bcst). LED tuning indicator, headphone and AC adaptor jacks, telescoping antenna, carrying strap. Requires two AA batteries. Compact - 6 3/4" w x 3 1/2" h x 1 1/2" d, 1.0 lbs **\$39⁹⁵**



ATS-803 AM/FM general coverage portable receiver. Covers 150kHz to 29.999MHz + plus 87.5 to 108MHz. FM stereo (via headphone). Five tuning functions: direct push-button, auto scanning, manual scanning, memory recall and manual tuning knob. Nine memories, built-in clock with alarm and sleep function. Separate BASS/TREBLE controls, RF GAIN and BFO control for SSB and CW reception. Illuminated digital frequency display, LED signal strength indicator, switchable wide and narrow filters, external antenna jack. Requires six D batteries for power and 2 AA's for memory. 11 1/2" w x 6 1/2" h x 2 1/2" d, 3 3/4 lbs **\$179⁹⁵**

SONY

ICF-PR080 FM/LW/MW/SW PLL Synthesized receiver. Covers 150kHz to 108MHz continuous coverage and 115.5 to 223MHz with supplied frequency converter. 40 station memories. Five detection modes: FM, FM Narrow, AM wide, AM Narrow and SSB. Eight tuning modes: Direct, Memory, Scan, Limited scan, Memory scan, Program memory scan and Priority. Telescoping and ferrite bar antenna, and external antenna connector. Earphone, shoulder strap, carrying case, antenna holder, FRQ-80 frequency converter. Requires six AA batteries. 3 3/4" w x 3 3/4" h x 1 1/4" d, 1 1/2 lbs. **349⁹⁵**



New!



SONY ICF-2003 FM/LW/MW/SW PLL Synthesized receiver. Tunes 153kHz-29.995MHz, and 76 to 108MHz FM. Manual, scan, keyboard access or 10 memory preset tuning. LCD readout, fine tuning, 12/24-hour clock with timer. Telescoping whip antenna built-in ferrite bar and external wire antenna in reel-in case. Recorder, earphone, external antenna and power jacks. Operates from 4 "AA" internal batteries (4 for power and 2 for memory), external battery case (supplied), 12V car battery or optional 110V adaptor. 4 3/4" h x 7 3/4" w x 1 3/4" d, 1.4 lbs **\$239⁹⁵**

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SHURE

SHURE 444D (left) Base Station Microphone. High output Controlled Magnetic® cartridge with tailored response for maximum voice clarity. High/Low impedance, press-to-talk momentary or locking switch bar, VOX/NORMAL switch, adjustable height, isolated or grounded switching **\$64⁹⁵**

SHURE 526T Series II (right) SUPER PUNCH Microphone. Built-in preamplifier with adjustable output that matches virtually any transceiver. Replaces ceramic or dynamic, high or low-impedance microphones supplied with original equipment. Switching and 6-wire coiled cable are arranged for easy hook-up using wiring guide supplied. Requires 9 Volt battery ... **\$84⁹⁵**

SHURE 404C (center) High impedance Controlled Magnetic® hand held microphone. Provides high speech intelligibility in base or mobile applications. Palm sized, rugged **\$42⁹⁵**



PIPO

See PIPO
in Price List

Compact, easy to install. Built for reliability and long life. Standard Touch-Tone® frequencies, immune to RFI.

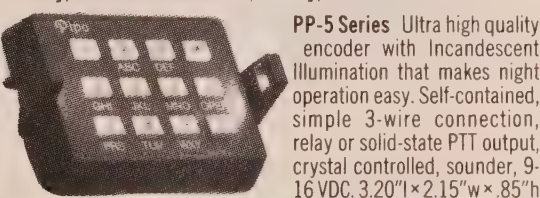
PP-1 Basic 12-key encoder for hand-helds. Self-contained, 3-wire hook-up. Positive snap-action gold contact switches and adjustable output level. Requires 6-16 VDC. 2.65"h x 2"w x .375"d.

PP-2 16-key encoder. The 16-button snap-action keyboard is useful for special control functions, etc. 2.65"h x 2"w x .375"d.

K-Series Has built-in circuitry and relay to automatically key a transmitter or other system. Relay activates when any button is pressed and remains closed for up to three seconds - adjustable.

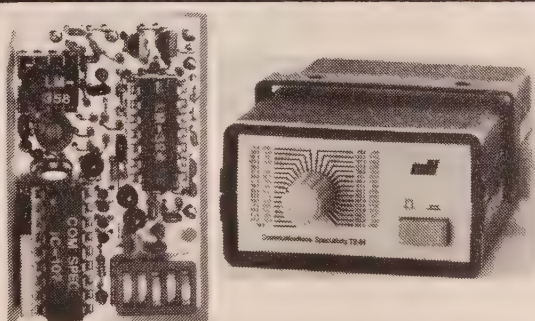
M-Series For mounting to surfaces that are inaccessible from the rear - walls, dashboards, panels, etc. Detachable frame secures to the mounting surface, encoder body inserts and held by press fit.

PP-3 Series 12 or 16 button encoders with separate, miniaturized electronics in three different configurations. Extra thin, only .180" thick allows for easy remote mounting in limited space. 12-key, 2.65"h x 2"w x 0.19"d; 16-key, 2.65"h x 2.5"w x .375"d.



PP-5 Series Ultra high quality encoder with Incandescent Illumination that makes night operation easy. Self-contained, simple 3-wire connection, relay or solid-state PTT output, crystal controlled, sounder, 9-16 VDC. 3.20"l x 2.15"w x .85"h

Communications Specialists



SS-32PA Universal sub-audible CTCSS Tone Encoder. Dip switch programmable, microminiature in size to fit inside of most portables. 32 standard tones, 67.0 to 203.5 Hz (± 0.1 Hz). 5 Volts p-p output, requires 6 to 30 VDC, 0.9" x 1.3" x 0.4"h. **\$29⁹⁵**

SS-32M Thin, jumper programmable, 32-tone subaudible tone Encoder for ICOM HTs. 6-12 VDC, 1.45" x 0.8" x 0.13" .. **\$29⁹⁵**

TS-32 Universal sub-audible tone Encoder/Decoder. Dip switch programmable for 32 standard tones from 67.0 to 203.5 Hz (± 0.1 Hz), 5 Volts p-p output, requires 6 to 30 VDC. **\$59⁹⁵**

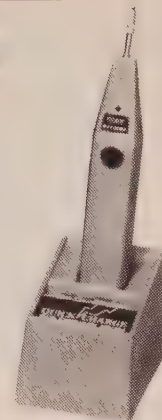
TE-64 64 tone frequency Encoder. Provides 32 sub-audible, 19 burst, 8 touchtone and 5 test tones, all selectable from front panel. 6-30 VDC or 9V battery. 1 1/4" h x 3 3/4" w x 5 1/4" d. **\$79⁹⁵**

WAHL

ISO-TIP Cordless Soldering Irons

Model 7540 Contains Nicad battery with capacity for up to 125 joints per charge. Recharges in 12 to 16 hours. Kit contains soldering iron, recharging stand and tip **\$29⁹⁵**

Model 7740 "Quick Charge" Cordless Soldering Iron. Contains a long lasting premium quality Nicad battery. A partially discharged unit will return to full capacity within an hour or two; recharges completely in 3 to 4 1/2 hours. Kit contains soldering iron, recharging stand and two tips **\$34⁹⁵**



WELLER



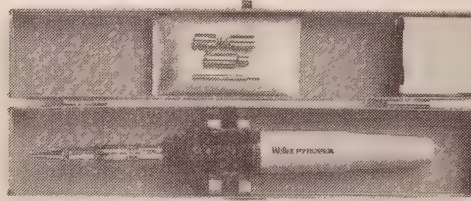
Model WTCPS Transformer powered soldering station with a lightweight, temperature controlled, 42-Watt soldering pencil. Stand mounts on right or left side of main unit, or can be detached for use several feet away. Contains tip cleaning sponge with self-feeding water reservoir and storage for 6 tips. Supplied with 1/16" 700°F screwdriver tip. 120V AC **\$99⁹⁵**

Model 7200PK 75-Watt Soldering Gun. Compact, lightweight, copes with trickiest of soldering jobs. Has a flat, self-supporting back which acts as a safe and convenient rest. Carrying case with coil of solder and extra tip included. 120 Volts, 50/60 Hz **\$19⁹⁵**



Model W-60P Temperature Controlled 60-Watt pencil-type soldering iron. Temperature selection of 600°, 700°, or 800° by merely changing tips. Supplied with 700° screwdriver tip. 7 1/2" long, 2 1/2 oz, 6 foot cord. 120 Volts, 50/60 Hz **\$34⁹⁵**

Model WP-25P 25-Watt pencil-type soldering iron for work on delicate electronic circuits. 750° tip temperature. 7 7/8" long, weighs only 1 1/4 oz. 4 foot cord, 120 Volts, 50/60 Hz ... **\$21⁹⁵**



WSTA3 Cordless Pyrogen™. Lightweight/completely portable iron - runs on LP gas for 3 hours of operation. Fast heat-up time, ready to go in 30 seconds. Temperature control from 392° to 932°F. Refill in moments with ordinary cigarette lighter butane. Supplied with three tips (Soldering, Hot Air, and Brazing), spanner, cleaning sponge and metal storage box. **\$54⁹⁵**

HEIL

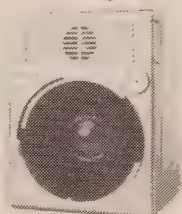
HM-5 Microphone. Reproduces voice frequencies essential to talking through QRM and QRN. High articulation with peak occurring at 2400 Hz, and sharp roll-offs at 350 and 3100 Hz. Works well into 600 ohm mic inputs. VOX operation, or use push-to-talk bar with locking switch. Quality, flexible goose neck set into die cast base **\$64⁹⁵**

SS-2 External Speaker System. Contains two 5W amplifiers, 3 1/2" air suspension woofer, 1 1/2" dome tweeter and crossover. Tweeter is crossed over at 1500 Hz, right where human ear response starts to fall off; woofer fills out the mid-range and low end. The second amplifier may be used to drive an extension speaker. 90-14000 Hz, 8 ohms, 3 3/4" x 5" x 3 3/4", 2 lbs. Requires 12V DC @ .4A... **\$59⁹⁵**

BM-10 Boom Mike Headset. Quality communications headphones with removable mike. Features Heil "DX element" for maximum talk power **\$64⁹⁵**

BM-10 wired for ICOM, KENWOOD or YAESU xcvs (specify) **74⁹⁵**

Note: BM-10 will not work with ICOM IC-701, 720, 730, 740, 251, or any other transceiver that does not have a built-in mic preamplifier.



Order Toll Free: 1-800-558-0411 In Wisconsin (outside Milwaukee Metro Area) **1-800-242-5195**

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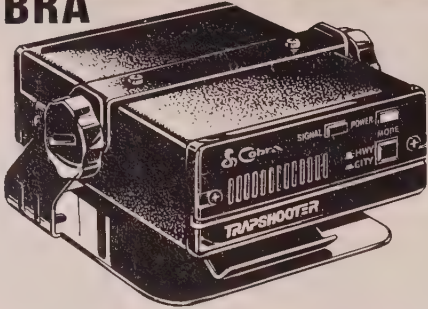
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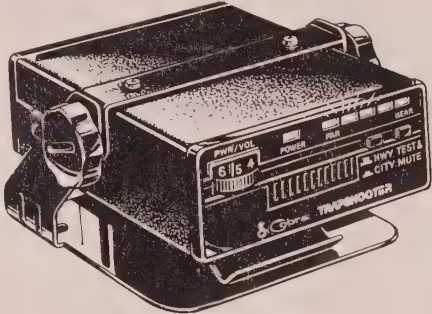
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RADAR DETECTORS

COBRA



RD-2100 Trapshooter™ X-K band Superhet. LED power and signal indicators, audible alarm, Highway/City selector switch. Cobra "NO FALSE" circuitry filters unwanted signals from other radar detectors. Adjustable, removable visor/dash mounting bracket, velcro fasteners, 9' cord. 3 1/8" w x 1 1/4" h x 4 1/8" d .. **\$79⁹⁵**



RD-3110 Trapshooter™ X-K band Superhet. LED power and 5-segment LED signal strength/range meter, audible alarm with volume control and test/mute button, Highway/City selector switch. Cobra "NO FALSE" and "LOCKOUT" circuitry filters unwanted signals from other radar detectors and out-of-band sources. Adjustable, removable visor/dash mounting bracket, velcro fasteners, 9' cord. 3 1/8" w x 1 1/4" h x 4 1/8" d **\$119⁹⁵**



RD-4100 Trapshooter™ Pro II X-K Band, dual alarm Superhet. LED power and signal indicators, audible alarm with volume control and indicator lamp, illuminated signal strength/range meter, Highway/City selector switch. Cobra "NO FALSE", "LOCKOUT", and "SIGNAL SENSOR" circuits reduce falsing caused by other radar detectors and out-of-band microwave sources. Adjustable, removable visor or dash mounting bracket, velcro fasteners, 9' cord. 5 1/4" w x 1 1/8" h x 5" d **\$129⁹⁵**

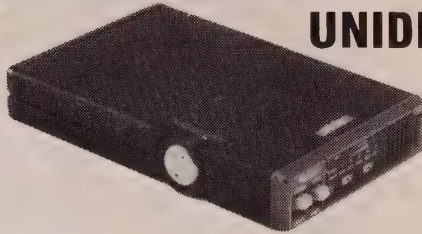


RD-5100 Trapshooter™ Pro II Remote X-K Band, dual alarm Superhet. Antenna module mounts behind car's grill, small (3 1/8" w x 1" h x 3" d) control head with "disguise cover" mounts under-dash. LED power and signal indicators, audible alarm with volume control and indicator lamp, Highway/City selector switch, test switch. Cobra "NO FALSE", "LOCKOUT", and "SIGNAL SENSOR" circuits reduce falsing caused by other radar detectors and out-of-band microwave sources. **\$159⁹⁵**



RD-3170 Trapshooter™ Ultra X-K Band. Selectable Alert Signals: Voice, Melody or Tone. LED strength meter. Visor, windshield or dash mountable. No False, Lockout and Signal Sensor anti-falsing circuits. 2 3/4" w x 1 1/4" h x 4 1/4" d, 7 oz **\$199⁹⁵**

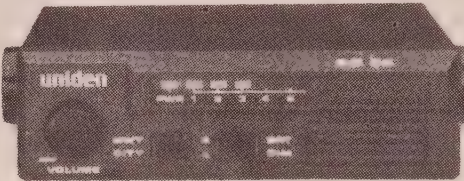
UNIDEN



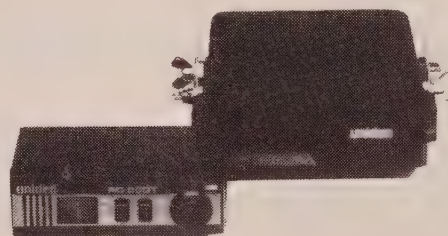
RD-9 X-K band. One of the smallest self-contained units, only 2 3/4" w x 3/8" h x 4 1/2" d. Segmented LED signal meter, Visual, and audible alarm signals with volume, Highway/City sensitivity switch. Visor clip, coiled cord w/cigar lighter plug. **\$169⁹⁵**



RD-35 X-K band double conversion Superhet. Compact, only 1 1/4" h x 3 1/4" w x 4 1/8" d, fits the most difficult dash or visor mount installations. Exclusive Electronic Data Interference Terminator (E.D.I.T.™) helps eliminate erroneous signal interference. Visual, and audible alarm with high/low volume switch **\$69⁹⁵**

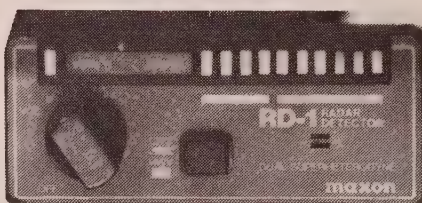


RD-55 X-K band double conversion Superhet. E.D.I.T.™ helps eliminate erroneous signals. Segmented LED signal strength meter, Visual, and audible alarm signals with adjustable volume, Highway/City sensitivity switch, dimmer. Convenient dash or visor mounting bracket. 5 1/8" w x 5 1/8" d x 1 1/2" h **\$99⁹⁵**

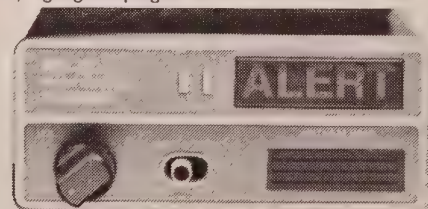


RD-95GT X-K band double conversion Superhet Remote. Two-piece (remote under-the-hood antenna and compact control unit). E.D.I.T.™ helps eliminate erroneous signals. Visual, and audible alarm signals with volume, Highway/City switch. Control: 3 1/8" w x 2 1/2" d x 1 1/4" d, Rcvr: 3 1/2" w x 3 3/4" d x 1 3/4" h **\$139⁹⁵**

MAXON

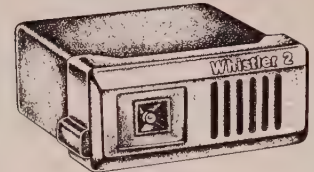


MAXON RD-1 X and K band scanning superhet, dual conversion. Two different audio warnings distinguish between radar types. Flashing LED bargraph indicates relative distance from radar source. Anti-false alarm circuit blocks "trash" signals from other detectors, intrusion alarms, door openers, etc. City/Highway button for added selectivity. Volume control, visor or dash mount, cig. lighter plug. 3 1/2" w x 4 3/4" d x 1 1/2" h **\$79⁹⁵**

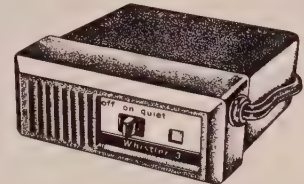


MAXON RD-2 X and K band scanning superhet, dual conversion. Audio alarm and a large, pulsating visual display. Rapidity of both increase as the radar signal becomes stronger. Anti-false alarm circuit blocks "dirty" signals from other detectors, intrusion alarms, door openers, traffic signals, etc. City/Highway button for added selectivity. Volume control, visor or dash mount, cig. lighter plug. 3 1/2" w x 4 3/4" d x 1 1/2" h **\$59⁹⁵**

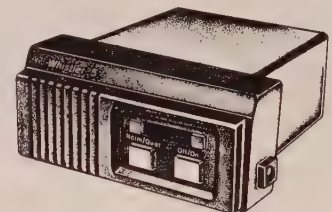
WHISTLER



WH-2 Economical X-K band Superhet. Whistler's Pollution Solution™ eliminates falsing. LED visual indicator and audio alarm buzzer, dash or visor mount **\$59⁹⁵**



WH-3 Economical compact X-K band Superhet. Pollution Solution™ eliminates falsing and 'Quiet' switch eliminates falsing from frequent intrusion alarm signals **\$79⁹⁵**



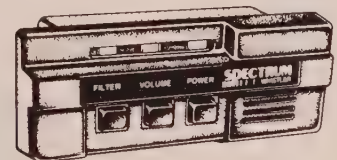
WH-5 X-K band Superhet. Small in size, big in power. Pollution Solution™ eliminates falsing and a Normal/Quiet switch eliminates the annoyance of frequent urban area intrusion alarms while maintaining sensitivity at all times **\$89⁹⁵**



WH-5 Remote X-K band remote Superhet. Features identical to the WH-5 but unit is concealable for security. The antenna/receiver module mounts out of the way behind car's grille and the small control console fits under-dash **\$99⁹⁵**

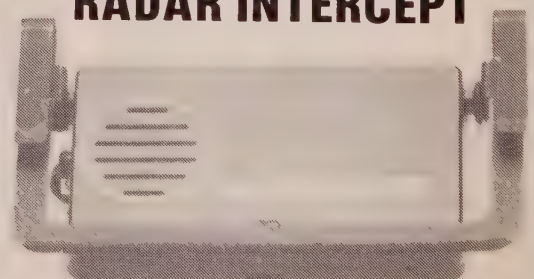


The Spectrum X-K band Superhet. Chosen #1 in the past *Motor Trend* tests. Pollution Solution™ eliminates falsing and Filter Mode™ eliminates falsing from intrusion alarms .. **\$129⁹⁵**



The Spectrum Remote Features identical to the Spectrum but concealable for security. The antenna/receiver module mounts behind car's grille, small console fits under-dash **\$149⁹⁵**

RADAR INTERCEPT



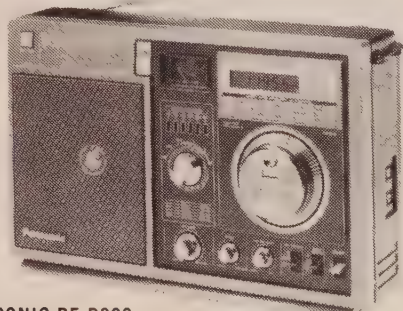
Model IN Visor mount Superhet Radar Detector features simultaneous FRONT and REAR Detection. Drops down and turns on, flips up and turns off when not in use **\$99⁹⁵**

Communications/Shortwave Receivers



New! PANASONIC RF-B60 Compact Multi-Band Radio

Covers **SW** (1.615-29.999 MHz), **MW** (522-1610 kHz), **FM** (87.5-108 MHz and **LW** (155-519 KHz). Micro-computer-controlled PLL Quartz Synthesized with up-conversion double superhet system. Six ways to tune: 36-Station Preset Memory; Frequency Direct Access; Meter Band Direct Access; Up/Down Manual; Automatic Scan; Electronic Rotary. Built-in dual clock/timer with sleep/standby functions and 10-key direct time set. LCD multi-information readout. Powered by (6) "AA" size batteries (not included). 4 1/4" h x 7 1/2" w x 1 1/2" d, 1 lb, 6 oz. Includes earphone, carrying case, antenna and hand strap. **\$239⁹⁵**



PANASONIC RF-B300

Covers AM/FM broadcast and four shortwave bands - 1.6 to 30 MHz. LCD frequency readout, bandwidth selector, slow/fast two speed tuning, tone control, DX/local switch, built-in 4" speaker, dial light. 117V AC or use 6 'C' cells (not supplied).... **\$259⁹⁵**



PANASONIC RF-B600

PLL synthesized. Covers AM/FM broadcast and 1.6 to 29.999 MHz. Microcomputer tuning - ten key direct access, zone auto tuning with manual/seek/scan, 9 presets and memory back-up. Built-in 3 1/2" speaker, separate volume/bass/treble. Universal AC voltage or use 8 'D'/3 'AA' cells (not supplied)..... **\$569⁹⁵**

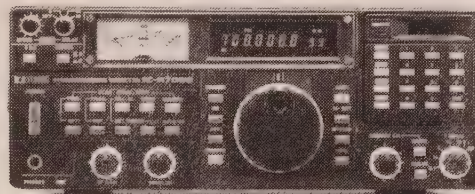


PANASONIC RF-3100

Covers AM/FM broadcast and 1.6-30 MHz in 29 bands. with 5-digit frequency readout. BFO, RF gain, bass/treble controls. Wide/narrow bandwidth selector, LED operation indicator. Lighted tuning/battery strength meter, built-in speaker and telescoping whip antenna. External recording and speaker jacks. 120V AC or battery operation with 8 "D" cells (not included), detachable shoulder strap. 14 1/4" w x 4 1/2" h x 8 1/2" d, 9 lbs. **\$399⁹⁵**

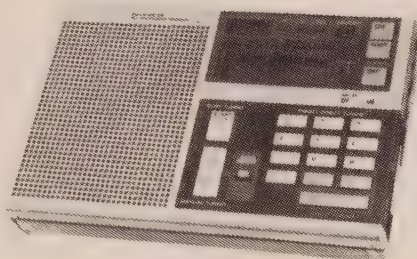


ICOM R-71A 100kHz to 30MHz general coverage receiver. SSB/CW/RTTY/AM, FM optional. Dual VFO's, direct keyboard entry, 32 tunable memories store frequency and mode, memory and band scan. RIT, passband tuning, notch, selectable AGC, noise blanker, tone, squelch, recording jack, 500Hz, 2.3, 6 and 15KHz selectivity, built-in speaker. Optional wireless remote controller and voice frequency readout. 110/220V AC, 13.8V DC (optional). 4 1/4" h x 11 3/4" w x 10 1/2" d, 16.5 lbs **\$799⁹⁵**



ICOM R-7000 25 to 2000 MHz FM/AM/SSB scanning receiver. Main tuning dial plus direct keyboard entry. Programmable memories store 99 favorite frequencies and mode. Memory, select memory, priority, and programmable frequency limit scanning. Six tuning speed, narrow/wide FM filters, S/Center meter, dial lock, noise blanker, fluorescent display with memory channel readout and dimmer switch. Optional infrared remote controller and voice frequency readout. 110/220V AC or 13.8V DC (optional). 4 1/4" h x 11 1/4" w x 10 1/2" d, 16.5 lbs. **\$949⁹⁵**

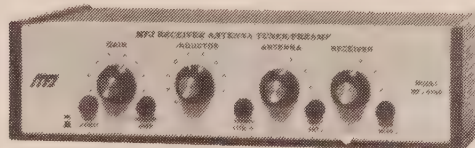
See Price List for ICOM Receiver Accessories



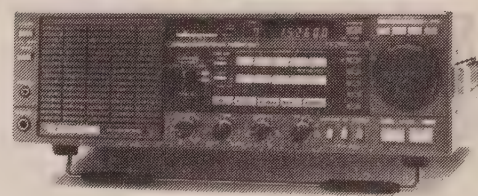
SONY ICF-2002 Portable AM/FM/SSB/CW receiver. Tunes 150KHz-30MHz, and 76 to 108MHz. Manual, scan, keyboard access or 10 memory preset tuning. LCD readout, fine tuning, 12/24-hour clock with timer, telescoping antenna. Recorder, earphone, external antenna and power jacks. Operates from 6 "AA" internal batteries, external battery case, 12V car battery or optional 110V AC adaptor. 4 1/2" h x 7" w x 1 1/4" d, 1.4 lbs .. **\$229⁹⁵**



SONY ICF-2010 Portable AM/FM/SSB/CW receiver. Tunes 150KHz-30MHz, 76-108MHz and 116-136MHz aircraft band. Manual, keyboard, automatic scan, memory scan or 32 memory preset tuning. LCD readout, switchable I.F. bandwidth, fine tuning. 12/24-hour quartz clock with alarm, programmable timer and sleep timer. Telescoping and ferrite bar antennas, 4" speaker. Recorder, earphone, external antenna and power jacks. Operates from 3 "D" + 2 "AA" internal batteries, 12V car battery or optional 110V AC adaptor. 6 1/4" h x 11 3/8" w x 2 1/8" d, 3 3/4 lbs. **\$329⁹⁵**



MFJ-959B Receiver Antenna Tuner/Preamplifier. Covers 1.8-30MHz, matches antenna to receiver for maximum signal. Low noise 20 dB amplifier with gain control boosts weak signals, 20dB attenuator reduces strong signals. Connect two receivers to two antennas with either coax or phono connectors. Select tuner, tuner with preamp and bypass. Requires 9-18V DC or 110V AC with optional AC adaptor. 2" h x 9" w x 6" d **\$79⁹⁵**

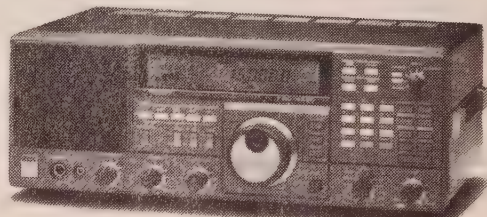


KENWOOD R-2000 150 KHz-30 MHz SSB/CW/AM/FM general coverage receiver. Also 108-174MHz with optional VHF Converter. Dual digital VFO's, 10 memories with battery back-up - store frequency, band, and mode data, programmable scanning. Digital display (100Hz resolution), S-meter, dual 24-hour quartz clocks with timer, 3 built-in IF filters and optional CW filter. All mode squelch, noise blanker, RF attenuator, AGC switch, tone control, S-meter, record and phone jacks, muting. 110/220 VAC, 12 VDC optional. 14 7/8" w x 4 1/2" h x 8 3/8" d, 12 lbs **\$569⁹⁵**



KENWOOD R-5000 100KHz-30MHz SSB/CW/AM/FM general coverage receiver. Also 108-174MHz with optional VHF converter. Dual digital VFO's, direct keyboard frequency entry, 100 memories - store mode, frequency, ant. selection. Programmable scanning, dual noise blankers, selectable AGC and RF attenuator, dual 24-hr. clocks with timer. Muting terminals, record and headphone jacks. Voice frequency readout and computer control options. 110/220 VAC, optional 12V DC. **\$769⁹⁵**

See Price List for KENWOOD Receiver Accessories



YAESU FRG-8800 150KHz to 29.999MHz general coverage receiver. Also covers 118-173.999MHz with optional VHF converter. Large LCD display with 100 Hz resolution and bargraph S/SINPO indicator. Manual tuning plus 21-button keypad for direct frequency entry and programming of 12 internal memories. Three scanning modes, dual 24-hour clock with automatic timer, computer compatible with interface unit (opt.). 110/220V AC, 12V DC w/DC kit (opt.). 14" w x 6" h x 9" d, 13 lbs. ... **\$629⁹⁵**



YAESU FRG-9600 60 thru 905MHz FM/AM/SSB receiver. Direct keyboard entry, 100 memory channels. FM/AM wide and narrow bandwidths, seven tuning rates 100Hz thru 100KHz. Scanning, computer interface capability, 24-hour clock/timer, multiplexed output and optional NTSC video for monitoring TV signals. 117 VAC or 12 VDC. 3 1/2" h x 7" w x 8 1/2" d **\$499⁹⁵**



EAVESDROPPER Shortwave broadcast receiving antenna. Automatic bandswitching trap circuits cover 11, 13, 16, 19, 25, 31, 41, 49 and 60M bands. Only 43 ft. long! Includes 100 ft. 72 ohm feed line and 50 ft nylon support rope. assembled **\$59⁹⁵**

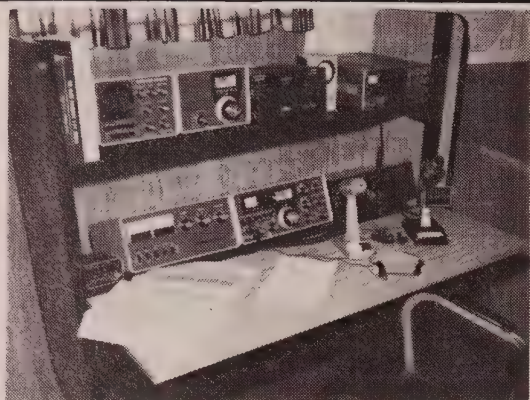
BETTER SHORTWAVE RECEPTION NEW 5TH EDITION!

How your radio receiver works
How to adjust it for best performance
How to develop an on foreign broadcasts
Police, fire, aircraft, marine, weather
Amateur, CB, private business radio
All about VHF FM scanning receivers
Long distance TV and FM reception
Monitor your radio signals from other areas
Plans to communicate with other worlds
WILLIAM J. ORR, W6SAI
STUART S. COWAN, W2LX

Better Shortwave Reception

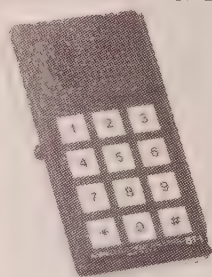
by Bill Orr W6SAI • Stu Cowan W2LX
5th Edition - How receivers work; getting the best performance. Hints for efficient receiving antennas. How to hear foreign broadcasts, police, fire, aircraft, marine, weather, hams, private business radio. FM scanning; long-distance TV and FM reception. Space signals **\$79⁹⁵**

CLOSEOUTS & SPECIALS

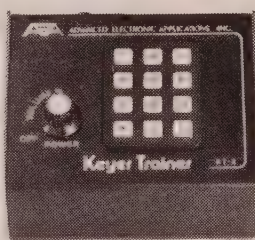


CTS Computermate II Workcenter

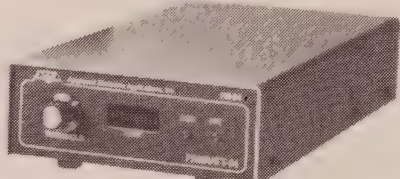
Organize Ham or Computer equipment for more convenient operating. Spacious wide mar resistant work surface, and wide metal shelves. Center slotting on upright framework allows adjustable vertical spacing of both work surface and individual shelves. Shelves have four tilt positions. Strong, all steel welded frame construction, baked enamel on all metal surfaces. Work surface and side panels are simulated walnut or oak grained and are accent trimmed with moldings. Adjustable floor levelers, snap-in chrome bookends and clip-in retainer bar prevents equipment from sliding off. UPS shippable in two cartons. See Price List for models, sizes and colors... **Closeout \$149⁹⁵**



AEA BT-1 Basic Code Trainer (left) Computerized, keypad entry. Characters are first introduced at 20 WPM then sent along with previously learned characters from 1 to 99 WPM. Keys for sending code practice, handy earphone jack for private listening, 12V DC..... **Closeout 49⁹⁵**



AEA KT-2 Keyer/Trainer (right) Computerized, with keypad entry. Set up desired speed and duration, KT-2 sends 5 letter groups or random word lengths with two levels of difficulty. Check progress with the 24K character book. Keyer section features 1 to 99 WPM speed with selectable dot/dash memory, independent dot/dash weighting, and variable tone. Full, semi-auto or straight key modes. 12V DC..... **Closeout 79⁹⁵**

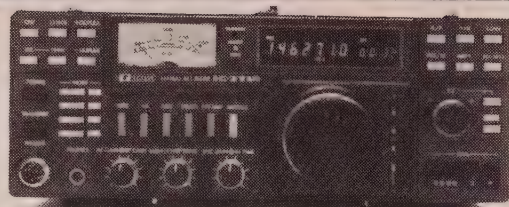


AEA PK-64A/HFM Multi-mode Data Controller for Commodore 64, SX-64, 64-C, or 128 computer. Work Morse, Baudot, ACSII, AMTOR, and Packet. All software is on ROM in the unit, no disk drive or other peripheral required. With HFM-64 enhanced modem for top all mode performance..... **Closeout \$289⁹⁵**



KENWOOD TM-411A 70 cm FM mobile. Extended coverage: 438-450 MHz, transmit and receive. GaAs FET RF amplifier, 25 or 5W output, Digital Code Squelch, dual digital VFO's, 5 memories plus "com" channel, with battery back-up, memory shift. Priority watch, memory scan and programmable band scan. LCD display and S/R meter, repeater offset/rev. switch. Tilttable front panel. External speaker, 16-key autopatch UP/Down Mic, mobile mount 5" w x 1" h x 7" d, 2.8 lbs... **Closeout \$299⁹⁵**

COLLINS
AC-2808 Blower Kit
for KWM-380
Closeout \$249⁹⁵



ICOM UHF Closeouts and Preamp Special

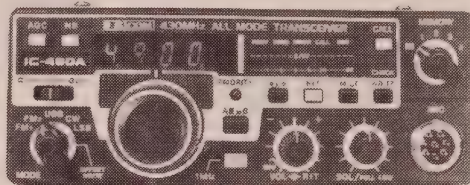
Features: Multi-mode (FM/SSB/CW) Base Station • 32 full function memories with lithium battery back-up • 32 built-in subaudible tones • Two-color fluorescent display • Scanning • Dual VFOs • Optional receive preamplifier • 12V DC or 117V AC with optional AC power supply • 11 1/4" w x 4 3/4" h x 10 3/4" d.

IC-471A 25W, 430-450 MHz (\$979⁰⁰) **\$749⁹⁵**
AG-1 Mast mounted rx preamplifier (Reg. \$99⁵⁰) *99⁵
IC-471H 75W, 430-450 MHz (\$1339⁰⁰) **\$989⁹⁵**
AG-35 Mast mounted rx preamplifier (Reg. \$95⁰⁰) *99⁵

*NOTE: Special Price on the Receive Preamps apply only when purchased WITH one of the above transceivers.

Other accessories:

PS-25 Internal AC power supply for 471A **\$104⁹⁵**
PS-35 Internal AC power supply for 471H **179⁹⁵**
EX-310 Voice synthesizer **46⁰⁰**
HM-14 TTP hand microphone **55⁵⁰**
SM-6 Desk microphone **44⁹⁵**



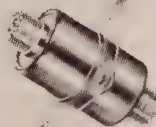
ICOM IC-490A Compact FM/SSB/CW transceiver for 430 to 440MHz. 10W (Hi)/1W (Lo) output. Dual VFO's, four memories, full band scan, programmable band scan, memory scan, noise blanker for SSB, amplified hand microphone. 6 1/2" w x 2 1/2" h x 8 3/4" d. Requires 13.8V DC @ 3.5A..... **Closeout \$399⁹⁵**



AMP SUPPLY AT-1200 Antenna Tuner. Covers 1.8-30 MHz, handles 700W average or 1.2KW PEP. Antenna switch selects three coax positions, long wire, balanced line and by-pass. Use of balanced line position requires balun. Built-in SWR meter. 4 1/4" h x 11" w x 9 1/4" d, 9 lbs..... **Closeout \$189⁹⁵**

DALE LA84AC Lightning Arrestor

Similar to Hy-Gain LA-1. Usable from 1.8 to 54 MHz. Installs in coax line between rig and antenna. Eliminates heavy static build-up on antenna and transmission line. Helps protect rig from lightning.... **Closeout \$49⁹⁵**



ZENITH A-8477 75 Ohm TV High Pass filter. Protects TV sets from 6 to 160 meter amateur transmitter interference. More than 45dB attenuation at 52 MHz and lower. Small - 2" x 1 1/4" x 1". For 75 ohm TV coax cable; TV type "F" connectors installed.. **\$9⁹⁵**

**PEDRO, WY4A
JIM, N4LIO**
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KENWOOD

TH-41AT 440MHz Handheld

List - \$229⁹⁵

Closeout • \$199⁹⁵*

*includes a **FREE** extra
PB-21 Battery Pack.

— also —

TU-6 Programmable encoder

List - \$36⁹⁵

Special • \$49⁹⁵†

† only when purchased with TH-41AT

ENCOMM/Santec Accessory Special!

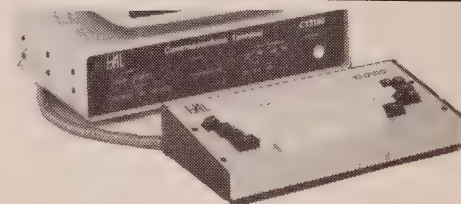


Purchase an **ENCOMM Santec ST-200ET** or **ST-400ET**, at our **SALE PRICE**, and get the Extra Battery Pack (BP), Soft Case (LC), Speaker microphone (SM1), and Mobile Charger Cord (MC)... a **\$75⁸⁰ Total Value!**... for only **\$10** more*.

Model	Regular	SALE
ST-200ET 1.5w 2m FM HT/batt/cgr/TTP	249.95	189 ⁹⁵
ST-400ET 1.5w 440 FM HT/batt/cgr/TTP	299.95	259 ⁹⁵
KT-BP Extra 250 ma. 8.4v battery	29.95	All for \$10
KT-LC Soft Case	11.95	
KT-SM1 Speaker/Microphone	26.95	
ST-MC Mobile Charge Cord	6.95	

*ST-200ET Special - \$199⁹⁵ • ST-400ET Special - \$269⁹⁵

See Price List for more ST-200ET/400ET accessories



HAL CT-2100 Receive-only Baudot/ASCII/CW communications terminal. With it's companion keyboard and a most any video monitor, it becomes a complete transmit and receive data terminal. 16 1/4" w x 6 1/2" h x 10 3/4" d..... **Closeout \$299⁹⁵**

KB-2100 Dedicated keyboard, 58 keys + space bar **149⁹⁵**
Service Manual for CT-2100..... **15⁰⁰**



YAESU

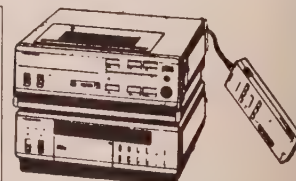
FV-107

Remote VFO

for FT-107 Transceiver
Closeout \$69⁹⁵

TOSHIBA

V-9035 Quad-Track
4-head Beta VCR
w/wired remote control
Closeout \$369⁹⁵



Misc. Antenna Closeouts

AEA Isopole 220 Jr. 220MHz Base Station ant **\$29⁹⁵**
HYGAIN HRD-144BNC (274) Pretuned flexible rubber duck antenna for 2M handhelds with BNC connector **\$4⁹⁵**
MIDLAND 18-950 220MHz 5/8-wave Trunk/Roof mount mobile antenna with coax cable and connector **\$14⁹⁵**
KLM 40-10V High efficiency 40, 20, 15, 10M vertical ant. 35' high, bracket for mast or wall mount **Special \$249⁹⁵**



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2-Year Factory Warranty.

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2m/70cm Dual Band
Mobile Transceiver

ALD-24T



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Full Duplex!**

140mm (W) x 50mm (H) x 164mm (D)
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Transceiver Available

With ALINCO's advanced engineering and technology, the ALD-24T 2m/70cm Dual Band Mobile Transceiver is designed to be the ultimate in compact size with an impressive array of features, allowing maximum flexibility in installation and ease of operation.

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- 21 Memory Channels
- Dual VFOs
- Large LCD

- **CTCSS Encoder/Decoder: Standard**
- 16-Key Autopatch Microphone with Up/Down Buttons
- Programmable Band Scan
- Memory Scan and Memory Lockout
- Ultra Compact & Light Weight
- Simple to Operate

- Programmable Standard and Non-Standard Repeater Offset

*Many features, see your Dealer!

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25WATT 2m, 45 WATT 2m
and 25 WATT 450 MHZ.

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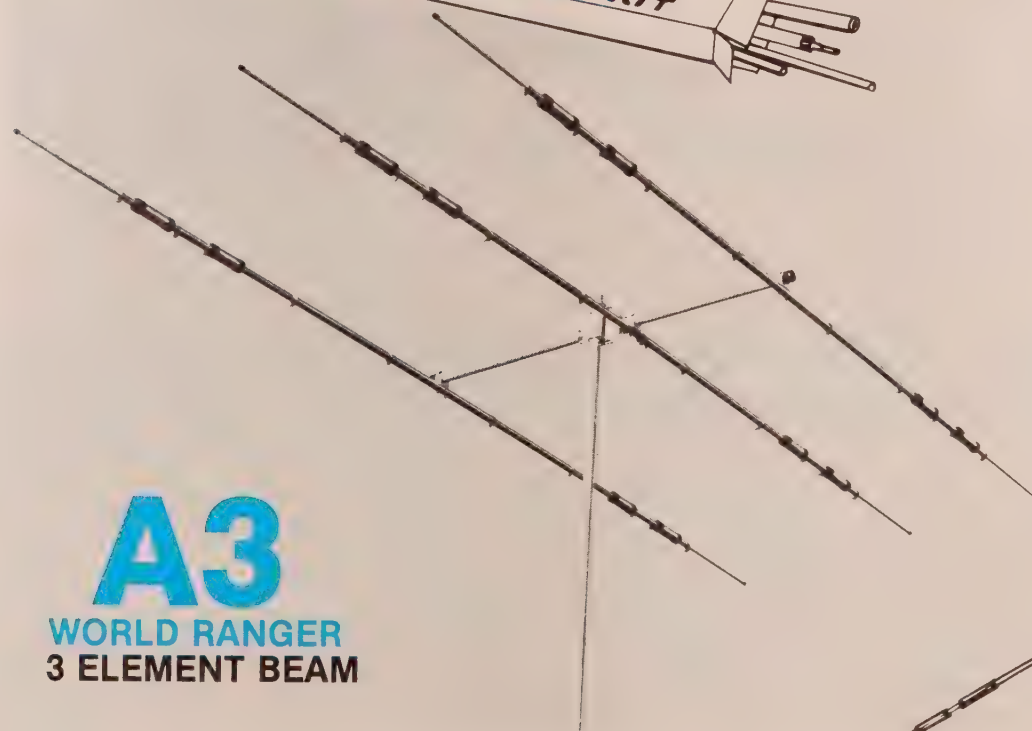
WIDEBAND

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WORLD RANGER BEAMS 10, 15, 20, 40 METERS

A4

WORLD RANGER
4 ELEMENT BEAM.



A3

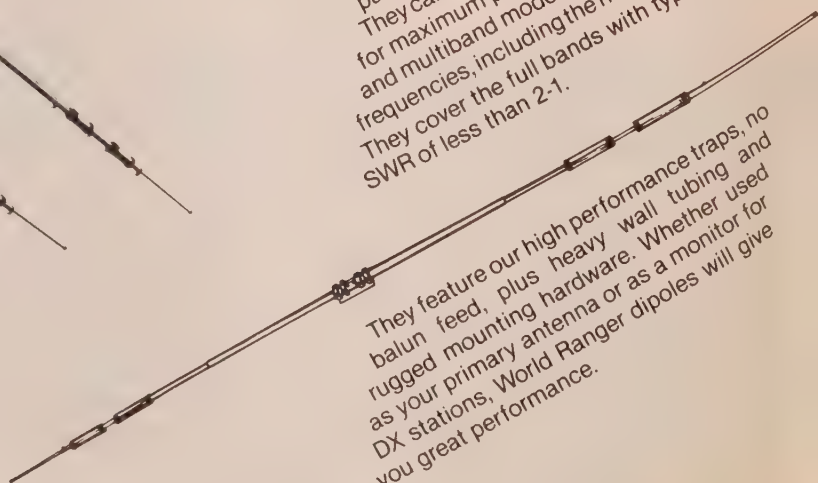
WORLD RANGER
3 ELEMENT BEAM

NEW!

WORLD RANGER ROTATABLE DIPOLES

Cushcraft World Ranger dipoles give you the performance advantages of bi-directional patterns with the ability to be easily rotated. They can be mounted up high and in the clear for maximum performance. There are single and multiband models to cover your favorite frequencies, including the new WARC bands. They cover the full bands with typical SWR of less than 2:1.

They feature our high performance traps, no balun feed, plus heavy wall tubing and rugged mounting hardware. Whether used as your primary antenna or as a monitor for DX stations, World Ranger dipoles will give you great performance.



IT'S EASY TO ADD 40 METERS
TO YOUR CUSHCRAFT TRIBANDER

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MAKE WORLDWIDE DX MORE FUN

A4 WORLD RANGER 4 ELEMENT BEAM 10, 15, 20 METERS

A true champion, our A4 continues to outperform other beams in day-to-day operation and the tough competition of contests. It has achieved the success of DXCC in only two days. A4 performance results from combining precisely tuned high power traps with excellent spacing to element length ratios.

The antenna is designed with fewer parts for easier assembly—less weight and a clean profile to reduce windload. Important construction details include G-10 fiberglass insulators, epoxy coated—weatherproof coils, galvanized steel element clamps, stainless steel boom and dipole clamps, plus anti-twist elements for greater strength and durability.

You too can improve the number and quality of your contacts with a contest winning World Ranger A4 beam.

Forward Gain	8.9 dBd
Front to Back Ratio, Avg	25 dB
SWR	1.2-1 Typical
Bandwidth, Avg KHz	500
Power Rating, Watts	2000 PEP
Feed Point Impedance	50 Ohms
Connector	Twin terminal stainless steel takes all coax.
No Balun Required	Zinc Plated Steel
Hardware	18 x 2 (548.6 x 5.1)
Boom, ft (cm)	
Longest Element & diameter, ft (cm)	32 x 1.13 - .50 (975.4 x 2.9 to 1.3)
Wind Surface Area, ft² (m²)	5.5 (0.51)
Turning Radius, ft (cm)	18.4 (561)
Mast Diameter, in (cm)	1.25 min. 2 max. (3.18 to 5.08)
Material	6063-T832 Seamless Aluminum
Telescope Method	Taper tubing with full circle clamps
Weight, lb (kg)	37 (16.8)

WORLD RANGER DIPOLE SPECIFICATIONS

MODEL	D40	D3	D4	DW3
Frequency, m	40	10,15,20	10,15,20,40	12,16,30
Bandwidth, KHz at 2:1				
SWR	200	>500	>350	>250
			40 > 125	
SWR at Resonance	1.5:1	1.5:1	1.5:1	1.5:1
Power Rating, Watts PEP	2000	2000	2000	2000
Length, ft (m)	42.25 (12.88)	25.8 (7.86)	35.8 (10.92)	34.0 (10.37)
Mast Diameter max., in (cm)	2 (5)	2 (5)	2 (5)	2 (5)
Windload, ft² (m²)	1.3 (.12)	.9 (.08)	1.3 (.12)	.9 (.08)
Weight, lb (kg)	12 (5)	9 (4)	13 (6)	11 (5)



WORLD RANGER 4 BAND KITS

Spectacular is the only way to describe these new four band add on kits for the A3 and A4 beams. Why have just another three band beam when with this simple addition you can have a Cushcraft "four bander"? You'll operate 40 meters or, with a simple adjustment, the new 10 MHz WARC band. With the bi-directional pattern you'll be able to pinpoint those regular contacts and DX stations.

The kits are complete with stronger center insulator, new Teflon® protected high power traps, all hardware and non stretch lamcord® support line. They can be quickly and simply clamped to your three or four element Cushcraft beam.

A743 7MHz 10MHz kit for A3 A744 7MHz 10MHz kit for A4

A743 & A744	7MHz (40m)	10MHz (30m)
Driven Element with Adapter kit, ft (m)	33-2¼ min. 35-4 max. (10.12 to 10.77)	27-1½ min. 28-4¾ max. (8.27 to 8.66)
Windloading, ft² (m²)	.58 (.05)	.27 (.03)
Bandwidth, KHz	125	150
Power Rating, Watts	2000 PEP	
Side Rejection, dB	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)

A3 WORLD RANGER 3 ELEMENT BEAM 10, 15, 20 METERS

Dynamite in a small package! A3 is a real power house beam with plenty of gain and front to back ratio to handle the pile-ups on your favorite DX bands. The heavy duty traps have enough reserve for a high power linear. All of this performance is yours with a clean profile beam that can be mounted on a light weight tower and rotator in a very small space. Its rugged design features quality components like galvanized and stainless steel clamps, zinc plated U-bolts, fiberglass insulators and heavy wall tubing.

You'll be pleased at the ease of assembly because we have designed out unnecessary hardware and given you a fully illustrated instruction manual. Proven in DX-peditions and contests, A3 has become the world standard for 3 element beams.

Forward Gain	8 dBd
Front to Back Ratio, Avg	25 dB
SWR	1.2-1 Typical
Bandwidth, Avg KHz	500
Power Rating, Watts	2000 PEP
Feed Point Impedance	50 Ohms
Connector	Twin terminal stainless steel takes all coax.
No Balun Required	Zinc Plated Steel
Hardware	14 x 1.63 - 1.50 (426.7 x 4.13 - 3.81)
Boom, ft (cm)	
Longest Element & diameter, ft (cm)	27.75 x 1.13 - .50 (845.8 x 2.86 - 1.27)
Wind Surface Area, ft² (m²)	4.36 (0.47)
Turning Radius, ft (m)	15.50 (4.72)
Mast Diameter, in (cm)	1.25 min. 2 max. (3.18 to 5.08)
Material	6063-T832 Seamless Aluminum
Telescope Method	Taper tubing with full circle clamps
Weight, lb (kg)	27 (12.9)

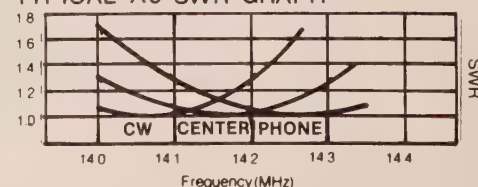
STAINLESS STEEL KITS

Convert your beam to all stainless steel hardware to eliminate the possibility of rust or corrosion. Excellent for antennas used near salt water or industrial areas. The kit includes all necessary clamps, U-bolts and fasteners.

A3 YAGI KIT = A3SK

A4 YAGI KIT = A4SK

TYPICAL A3 SWR GRAPH



World Ranger Beams are broadband to operate with all solid state transceivers.

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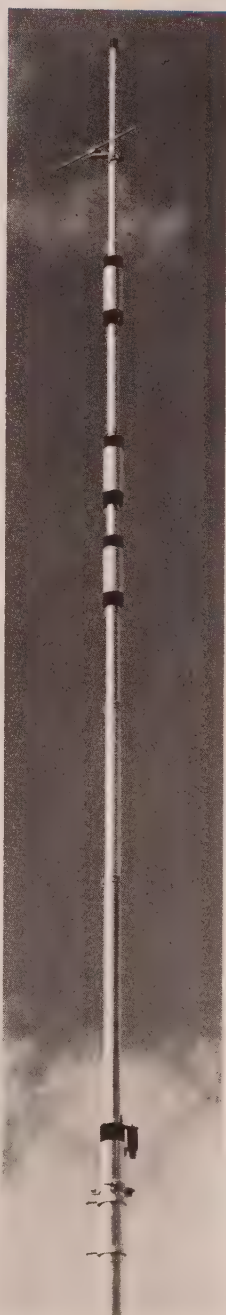
HF LASER

Multiband Verticals

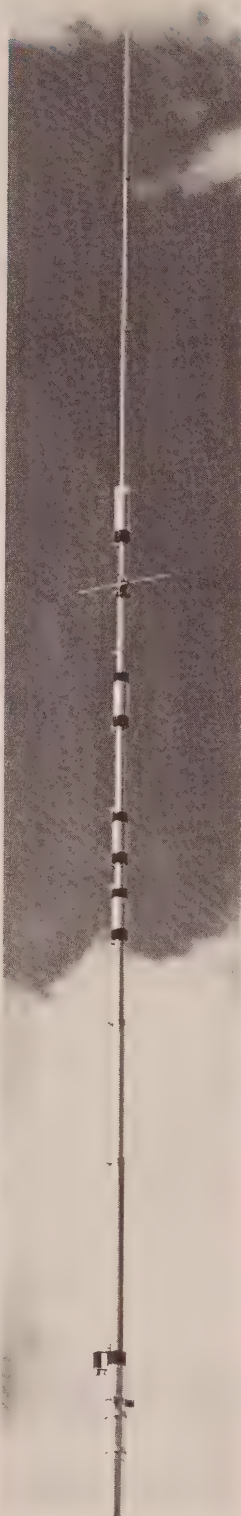
AV3



AV4



AV5



AV5 Work all popular HF bands

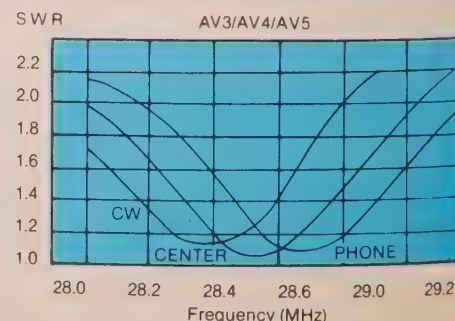
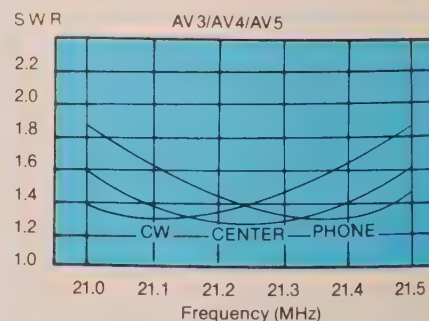
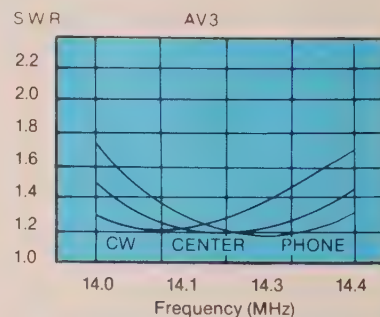
Frequency Range, meters	80, 40, 20, 15, 10
SWR	Less than 2:1 80 > 70 KHz
Height, ft (m)	25 (7.4)
Mount, in (cm)	Sleeve, 1.75 (4.5)
Power Capability, Watts	2000 PEP
Wind Survivability, mph (kph)	80 (130) plus
Radiator	6063-T832 alum.
Element Diameter, in (cm)	1.375 (3.5) max.
Connector	S0239

AV4 Excellent 40 meter coverage

Frequency Range, meters	40, 20, 15, 10
SWR	Less than 2:1
Height, ft (m)	19 (5.9)
Mount, in (cm)	Sleeve, 1.75 (4.5)
Power Capability, Watts	2000 PEP
Wind Survivability, mph (kph)	80 (130) plus
Radiator	6063-T832 alum.
Element Diameter, in (cm)	1.375 (3.5) max.
Connector	S0239

AV3 Three popular DX bands

Frequency Range, meters	20, 15, 10
SWR	Less than 2:1
Height, ft (m)	14 (4.2)
Mount, in (cm)	Sleeve, 1.75 (4.5)
Power Capability, Watts	2000 PEP
Wind Survivability, mph (kph)	80 (130) plus
Radiator	6063-T832 alum.
Element Diameter, in (cm)	1.375 (3.5) max.
Connector	S0239



HF LASERS are the high performance economical antenna for today's active multiband station. HF LASERS should be your first choice for operating flexibility with little investment. HF LASERS cover the entire band on 40, 20, 15 and 10 meters. Consider the advantages of having 70 KHz plus at your finger tips on 80 meters. Automatic switching, broadband enclosed traps and

stainless steel hardware are standard. HF LASERS are all-weather antennas that will survive hurricane force winds.

Your HF LASER may be roof or ground mounted. A good ground radial system is recommended. In some cases a simple ground rod will be sufficient.

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AP8 POWERWAVE

The charge to our engineering staff was to develop an eight band $\frac{1}{4}$ wavelength vertical antenna covering the 10, 12, 15, 17, 20, 30, 40 and 80 meter amateur bands. Design objectives included maximum performance with high quality construction. For customer satisfaction, assembly and installation should take only a short period of time using basic tools. The final design must give attention to every detail and be priced to comfortably meet the average ham budget.

The heart of the all new **AP8** antenna is the **POWERWAVE TRAP** incorporating a time proven Cushcraft capacitor design. This results in compact traps with better frequency selectivity and 10% greater radiation efficiency. Epoxy coated coils made from large diameter aluminum and enameled copper wire plus high voltage polyethylene dielectric give legal limit power handling. This unique design allows the use of separate high efficiency traps for each band. Since antenna performance varies between locations, the AP8 includes telescoping tubing sections which allow for adjustment to minimum SWR at each location. AP8 is the only $\frac{1}{4}$ wave vertical with a broadband feed point transformer giving wide bandwidth matching.

AP8 construction is all heavy duty with .058 wall seamless aluminum tubing, G-10 filament wound fiberglass insulators, slotted telescope tubing sections and heavy worm drive stainless steel clamps. All hardware is stainless steel. Capacitor sections are sealed and bonded with FIT321 shrink tubing. The base design allows easy ground or roof top mounting.

The Cushcraft AP8 is the most versatile quarterwave vertical available for today's radio amateur from novice to extra class. More bands, greater radiation efficiency, simple installation and reasonable price make AP8 our most popular new antenna. Order yours today.

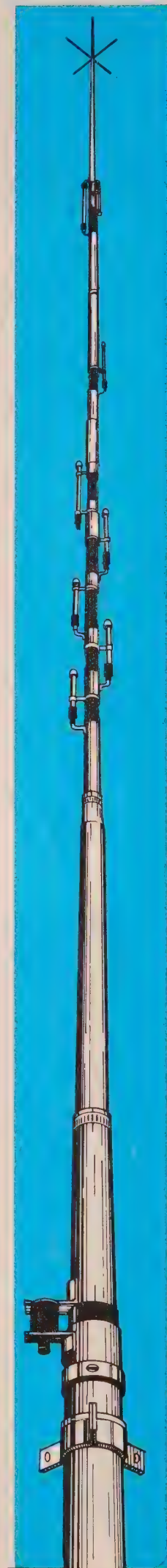
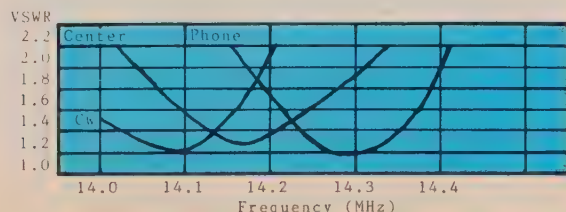
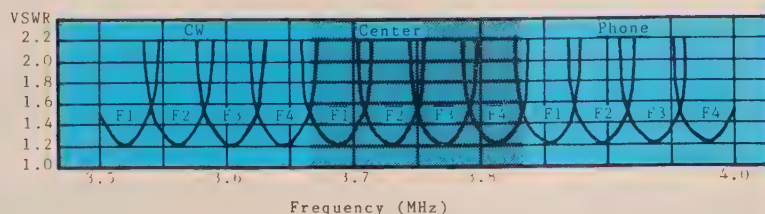
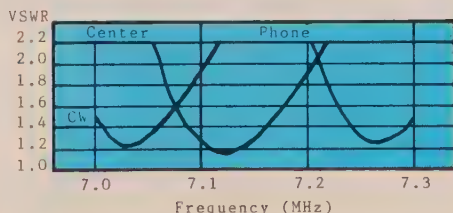
AP8 FEATURES

- 10-12-15-17-20-30-40-80 METERS
- HIGHLY EFFICIENT POWER WAVE TRAPS
- FULL BANDWIDTH SWR LESS THAN 2:1
80 M > 50 KHz
40 M > 140 KHz
- BROADBAND FEED POINT TRANSFORMER
- 80 MPH WIND SURVIVAL
- HEAVY WALL TUBING
- FULL LEGAL POWER HANDLING
- DC GROUND FOR STATIC DISSIPATION
- FACTORY PRE-TUNED TRAPS
- ONLY 26 FT (7.98 m) HIGH
- SEALED HIGH VOLTAGE DIELECTRIC CAPACITORS TO ELIMINATE CONTAMINATION
- SO-239 ACCEPTS PL-259 CONNECTOR
- REDUCED WIND LOADING
- QUICK EASY ASSEMBLY WITH BASIC TOOLS
- STURDY UPS SIZE SHIPPING CARTON
- WEIGHT 9.3 LBS (4.2 KG)
- MAXIMUM VERTICAL RADIATOR DIAMETER 1.375 in (3.5 cm)
- RADIAL KIT AVAILABLE

RADIAL KIT.

This easy to use kit features 6 radials of 4 conductor wire pre-cut for the AP8. Maximum radial length is 29 ft. (8 m). They are complete with connecting lugs for quick attachment to the AP8 base.

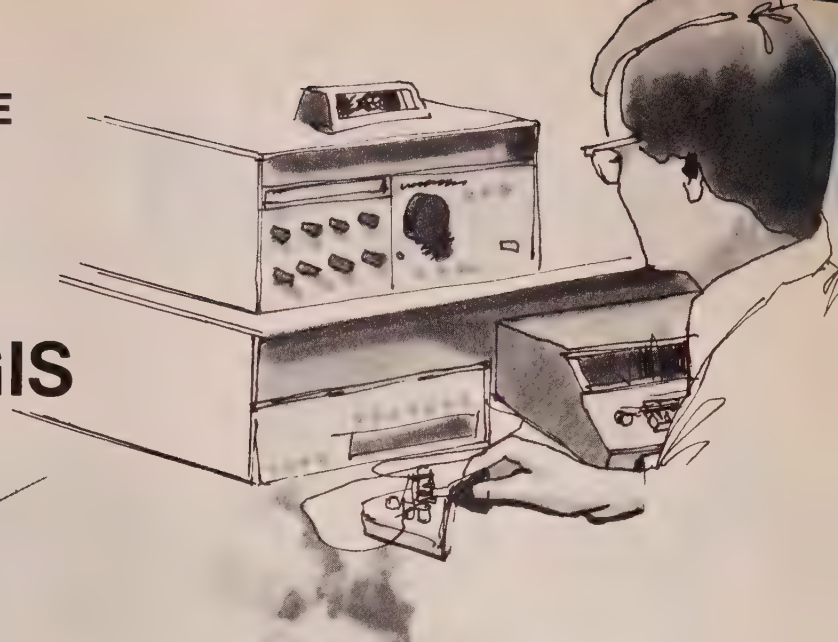
MODEL APR18



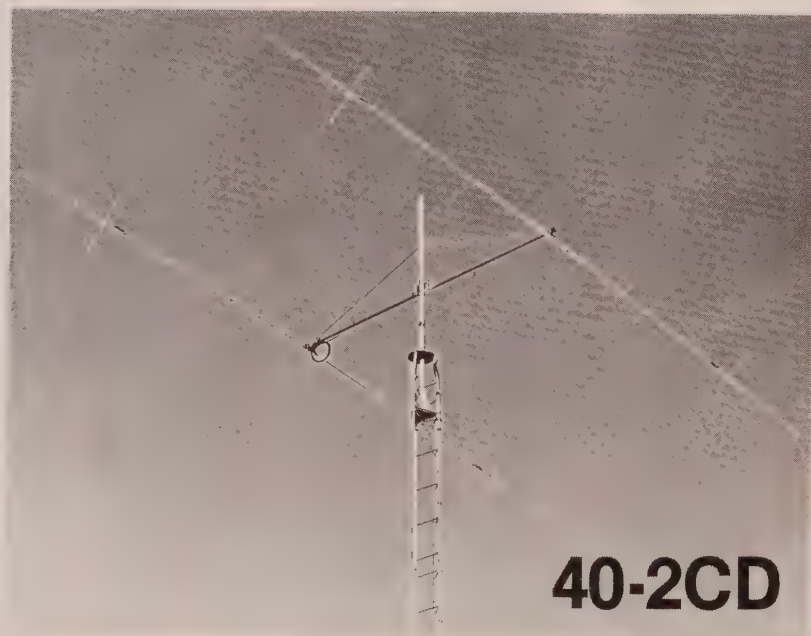
PROVEN CONTEST WINNERS
THAT GIVE YOU MORE PERFORMANCE
IN LESS SPACE

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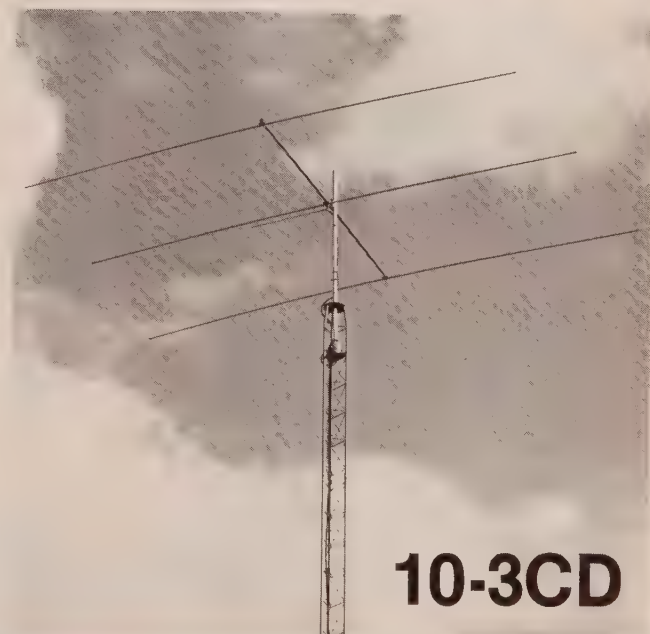
SKYWALKER HF YAGIS



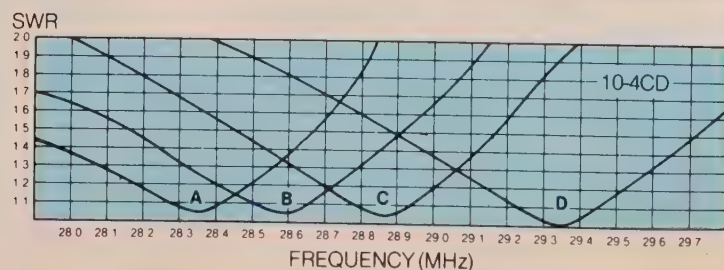
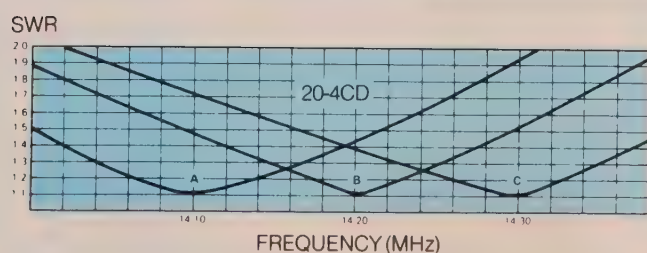
20-4CD



40-2CD



10-3CD



FOR MORE
CONTACTS

TRY OUR HIGH PERFORMANCE
2 ELEMENT 40 METER BEAM.

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40, 20, 15, 10 METERS

HF YAGIS

40, 20, 15, 10 METER

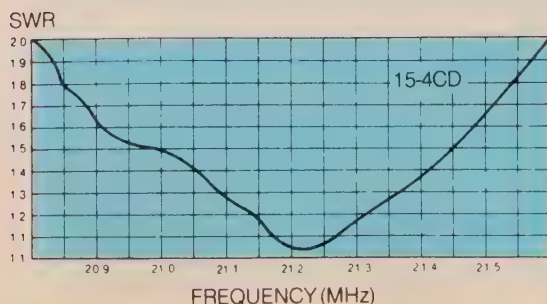
More contacts, less waiting, less interference, and a better signal at the other end are yours with the Skywalker series of computer design single band Yagis. Skywalkers are based on a FORTRAN program which allowed Cushcraft engineers to maximize the gain while minimizing sidelobes and SWR. The 10 dBd forward gain of the 4 element models and 8 dBd of the 3 element version will put you first in line. Either type may be stacked for additional gain.

Construction features for all models include heavy wall heat treated 6063-T832 aluminum tubing, rugged stainless steel fasteners, worm drive element clamps, and carefully formed aluminum brackets. Assembly is simple with the new Cushcraft boom assembly marking system. The high strength, lightweight aluminum often allows one-man installation and rugged construction insures easier assembly and long life. Skywalkers are used by major DX and contest stations around the world.

40 METER

Holder of the North American 7 MHz contact record. This compact two element antenna has quickly become "the most wanted" 40 meter beam. It should be your first choice.

MODEL	40-2CD
Frequency, MHz	7.0-7.3
Forward Gain, dBd	5.5
F/B Ratio, dB	20
Boom Length, ft	23
(m)	(6.9)
Boom Dia., in	2.13-1.88
(cm)	(5.4-4.8)
Longest Element, ft	43
(m)	(12.9)
Element Dia., in	1.25-.5
(cm)	(3.1-1.3)
E-plane B/width, deg	70
Side Lobe Attenuation, dB	25
1.5:1 SWR Bandwidth, KHz	180
Turning Radius, ft	23.93
(m)	(7.29)
Windload, ft ²	6.38
(m ²)	(.57)
Weight, lb	40.68
(kg)	(18.3)



20 METER

Enjoy the all-out performance of four elements on a 32 ft (9.75 m) boom, or if your space is limited, use our compact three element beam. Both antennas are designed to punch your signal through on this very active band.

MODEL	20-4CD	20-3CD
Frequency, MHz	14.0-14.35	14.0-14.35
Forward Gain, dBd	10.0	8.0
F/B Ratio, dB	30	30
Boom Length, ft	32	18
(m)	(9.75)	(5.49)
Boom Dia., in	2.13-1.88	2.13-1.88
(cm)	(5.4-4.8)	(5.4-4.8)
Longest Element, ft	35.83	35.66
(m)	(10.92)	(10.87)
Element Dia., in	1.25-.50	1.25-.50
(cm)	(3.1-1.3)	(3.1-1.3)
E-plane B/width, deg	60	56
Side Lobe Attenuation, dB	40	40
2:1 SWR Bandwidth, KHz	400	300
Turning Radius, ft	23.75	20
(m)	(7.2)	(6.1)
Windload, ft ²	8.1	5.5
(m ²)	(.75)	(.51)
Weight, lb	55	30
(kg)	(24.95)	(13.61)

15 METER

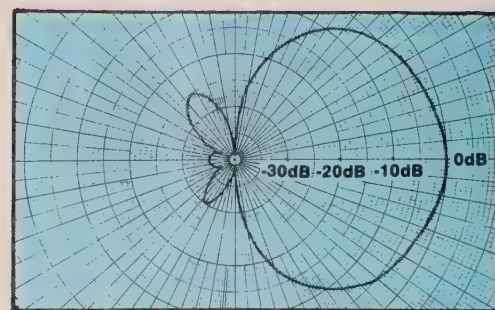
Here are two exciting Skywalker beams for the fifteen meter enthusiast. If you demand maximum gain, make your choice the four element. You may want to try stacking the three element models.

MODEL	15-4CD	15-3CD
Frequency, MHz	21.0-21.45	21.0-21.45
Forward Gain, dBd	10.0	8.0
F/B Ratio, dB	30	30
Boom Length, ft	20	14
(m)	(6.10)	(4.27)
Boom Dia., in	2-1.63	1.88-1.63
(cm)	(5.1-4.1)	(4.8-4.1)
Longest Element, ft	23.33	23.16
(m)	(7.11)	(7.06)
Element Dia., in	1-.63	1-.63
(cm)	(2.5-1.6)	(2.5-1.6)
E-plane B/width, deg	57	56
Side Lobe Attenuation, dB	40	40
1.5:1 SWR Bandwidth, KHz	500	500
Turning Radius, ft	15.5	13.50
(m)	(4.72)	(4.11)
Windload, ft ²	4.5	3.4
(m ²)	(.42)	(.32)
Weight, lbs	25	20
(kg)	(11.34)	(9.07)

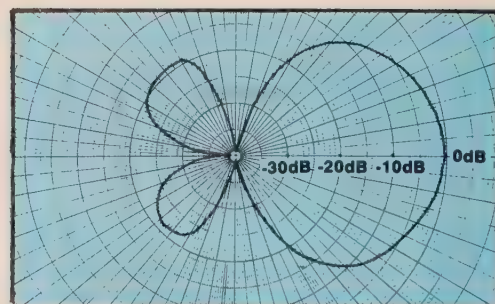
10 METER

Work the world with either one of these easy to use antennas. You'll enjoy all of the benefits of a high performance antenna system with our easy to assemble designs.

MODEL	10-4CD	10-3CD
Frequency, MHz	28.0-29.7	28.0-29.7
Forward Gain, dBd	10.0	8.0
F/B Ratio, dB	30	30
Boom Length, ft	17	12
(m)	(5.18)	(3.66)
Boom Dia., in	1.75-1.50	1.63-1.50
(cm)	(4.4-3.8)	(4.1-3.8)
Longest Element, ft	17.83	17.66
(m)	(5.43)	(5.38)
Element Dia., in	.88-.63	.88-.63
(cm)	(2.2-1.6)	(2.2-1.6)
E-plane B/width, deg	57	56
Side Lobe Attenuation, dB	40	40
1.5:1 SWR Bandwidth, KHz	600	700
Turning Radius, ft	14	10
(m)	(4.27)	(3.05)
Windload, ft ²	3.1	2.3
(m ²)	(.29)	(.21)
Weight, lbs	18	11
(kg)	(8.16)	(5.00)



Typical 4 Element Pattern

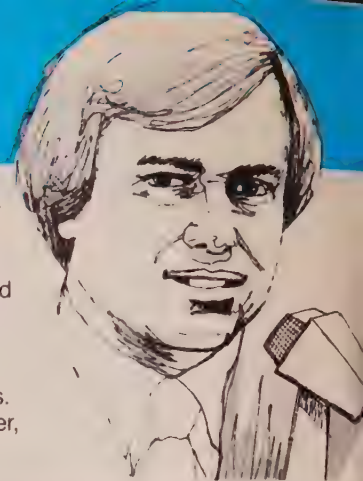


Typical 3 Element Pattern

TWO NEW HIGHER PERFORMANCE 2 METER BOOMERS 215 WB AND 4218 BOOMER XL

cushcraft **BOOMERS** **The Contest Winners**

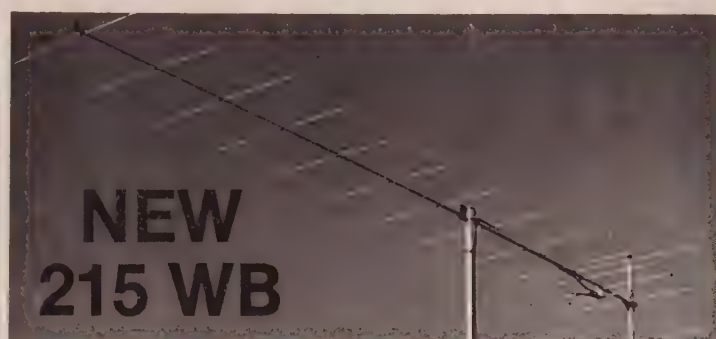
Antennas so efficient, powerful, and successful that they defy comparison. They have won every antenna measuring contest in which they have been entered. They have established new EME contest record scores. Boomer's computer based design has become the standard of comparison for others to copy. Listen on any VHF or UHF band, you'll hear experienced, knowledgeable hams using high performance Boomer antennas. Be prepared, Tropo scatter, E skip, meteor scatter, aurora, EME and VU Century Club will be yours with a Cushcraft Boomer.



**NEW
4218XL**



**NEW
215 WB**



424B



410B

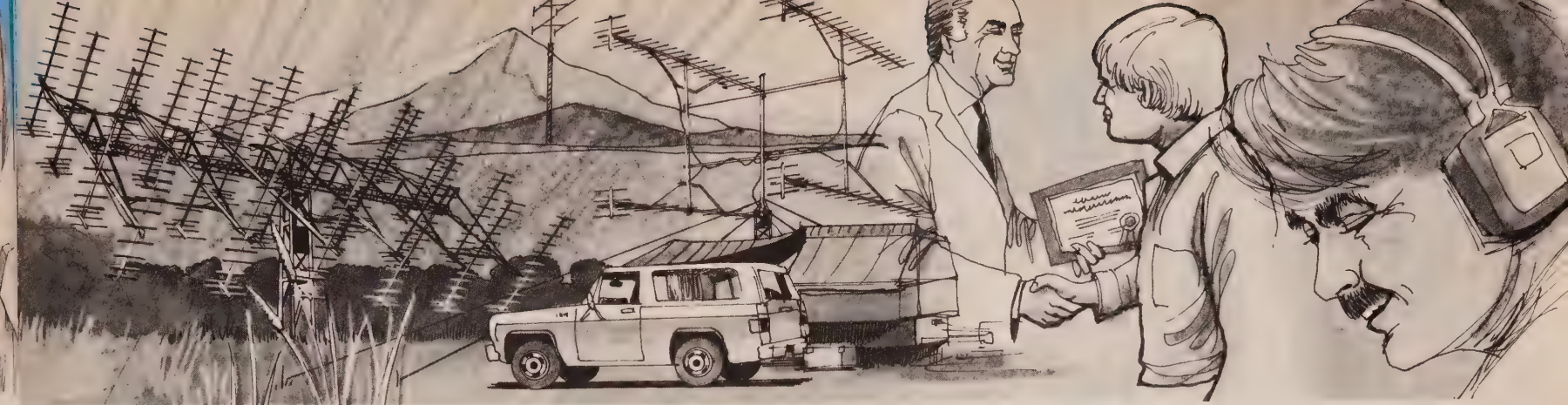


220B



BOOMER STACKING INFORMATION

Antenna	2X617-6B	2X215WB	4X215WB	2X32-19	4X32-19	2X220B	4X220B	2X424B	4X424B	2X4218XL	4X4218XL
Forward Gain, dBd	16.6	18.5	21.5	18.8	21.2	19.8	22.4	20.8	23.4	20.2	23.2
Front/Back Ratio, dB	30	24	24	24	24	30	30	30	30	24	24
E-Plane Beamwidth, deg	2X17.5	2X17	2X8.5	2X14	2X7.5	2X13	2X6.5	2X9.5	2X4.8	2X13	2X6.5
H-Plane Beamwidth, deg	2X10	2X9	2X9	2X8.5	2X7	2X7	2X5.5	2X5.5	2X4.8	2X7.25	2X7.25
Stacking Distance											
Vert, ft	26	10	10	12	12	8	8	5.0	5.0	12.63	12.63
(m)	7.92	3.05	3.05	3.66	3.66	2.44	2.44	1.97	1.97	3.85	3.85
Horiz, ft	—	—	10	—	13	—	8.5	—	5.5	—	13.38
(m)	—	—	3.05	—	3.96	—	2.59	—	2.16	—	4.08
Approximate Weight,											
lb	62	22	44	26	97	23	76	16	55	32.5	115
(kg)	28.12	10.00	20.00	11.79	44.00	10.40	34.40	7.26	24.95	14.8	52.3



2 METER

Develop new friendships explore new horizons and achieve new levels of operating success, with any one of three exciting Boomer models for 2 meters.

Boomer XL is "the antenna for 2 meter DX". More than 3 years of design, antenna range tests, and on-the-air contesting have been combined to produce the 4218XL's higher gain and cleaner pattern. This antenna is designed to survive. It features step tapered boom, tubular support braces and all stainless steel hardware. The new 4218XL is the only antenna with this great combination of features to make your 2 meter activity more successful and satisfying.

The band is at your command with 32-19 which has very high gain on a 22 foot 3.2 boom. A perfect choice antenna where space is not available for the longer XL.

The 215WB features the latest in wideband technology. Whatever your favorite 2 meter mode may be, the 215WB will give you excellent gain and pattern horizontally or vertically polarized.

All Boomer models above 6 meters have solid rod elements, hard drawn 6063-T832 aluminum tubing booms and stainless steel hardware. They also feature trigon reflectors, balanced T-Match feed system including 50 ohm coaxial baluns. The fully detailed manuals with help to put you on the air quickly and easily. Enjoy your hobby more with a Cushcraft Boomer.

MODEL	32-19	4218XL	215WB
Frequency Range MHz	144-146	144-145	144-148
Forward Gain dBd	16.2	17.2	15.5
Front/Back Ratio dB	24	24	24
Boom Length ft, (cm)	22 (6.71)	28.8 (8.78)	15 (5.57)
Wavelength Number of Elements	3.2 19	4.2 18	2.2 15
SWR Typical	1.2:1	1.2:1	1.2:1
Impedance, Ohms	50	50	50
Beam Width, deg.			
E-Plane	2X14	2X13	2X17
H-Plane	2X17	2X14.5	2X18
Side Lobe Attenuation, dB	60	60	60
Turning Radius ft (m)	11 (3.35)	16.66 (5.08)	7.5 (2.29)
Wind Load, ft ² (m ²)	3.5 (3.3)	3.5 (3.3)	1.7 (.16)
Weight, lb (kg)	12 (5.44)	14.3 (6.5)	8 (3.63)

POWER DIVIDERS

PD-2	Power Divider, 2, 32-19, 215WB or 4218XL
PD-4	Power Divider, 4, 32-19, 215WB or 4218XL
PD-222	Power Divider, 2, 220B
PD-224	Power Divider, 4, 220B

6 METER

The 617-6B has more gain than any other 6 element 6 meter antenna. The 34 foot boom puts it in a class by itself. With Boomer's 14 dB gain you will be the first one through when the band opens. The 617-6B Boomer, using the latest in computer design technology, is designed for the serious 6 meter operator.

MODEL	617-6B
Frequency Range, MHz	50-51
Forward Gain, dBd	14.0
Front/Back Ratio, dB	30
Boom Length, ft (m)	34 (10.36)
Wavelength	1.7
Number of Elements	6
SWR Typical	1.2:1
Impedance, Ohms	50
Beamwidth, deg	
E-Plane	2 x 19
H-Plane	2 x 20
Side Lobe Attenuation, dB	60
Longest Element, ft (m)	9.5 (2.89)
Turning Radius, ft (m)	17.7 (5.39)
Windload, ft² (m²)	4.8 (.45)
Weight, lb (kg)	26 (11.79)

1 1/4 METER

All of the features that have made the 2 meter Boomers tops on their band have been incorporated into the 220B, 1 1/4 meter Boomer. Join the excitement on our fastest growing amateur band. Let Cushcraft's 220B make your adventure more enjoyable.

MODEL	220B
Frequency Range, MHz	220-223
Forward Gain, dBd	17.2
Front/Back Ratio, dB	30
Boom Length, ft (m)	19 (5.8)
Wavelength	4.2
Number of Elements	17
SWR Typical	1.2:1
Impedance, Ohms	50
Beamwidth, deg	
E-Plane	2 x 13
H-Plane	2 x 14
Side Lobe Attenuation, dB	60
Turning Radius, ft (m)	9 (2.64)
Windload, ft² (m²)	2.6 (.24)
Weight, lb (kg)	10.5 (4.77)

STACKING FRAMES AND HARNESSES

Antennas Being Stacked	Select Kit Model	Kit Description
617-6B (2 ants.)	617-SK	Harness and Power Divider
215 WB (2 ants.)	22-SK	Harness and Power Divider
215 WB (4 ants.)	224QK	H-frame, Harness, and Power Dividers
32-19 (2 ants.)	32SK	Harness and Power Divider
32-19 (4 ants.)	324QK	H-frame, Harness, and Power Dividers
220B (2 ants.)	220SK	Harness and Power Divider

70 CM

The dynamic duo for 432. Through the boom insulated elements, precise spacing and high efficiency reflector systems are important to you. They are the features that make the 70 CM Boomer a must. Choose from two contest winning models: the rear mounted 410B with 15.0 dBd forward gain or the band opening 424B, 7.6 wavelength 18.2 dBd gain Boomer.

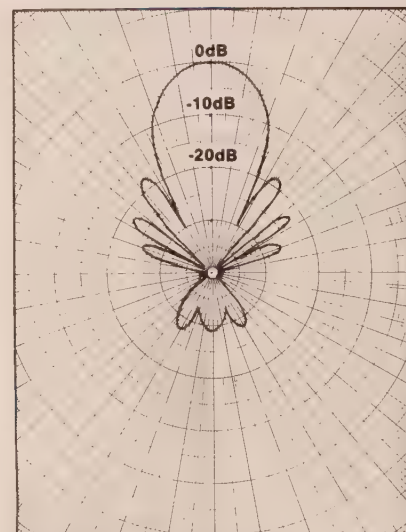
Here is why you can expect years of service from a 70 CM Boomer. All stainless steel hardware including non-slip element retainers, ultraviolet stabilized element insulators, teflon dielectric coaxial balun, weather resistant low loss N connector, and seamless heavy wall boom material with stainless steel locking pins.

These antennas have proven themselves in gain measuring contests and on the air activities. Accept the challenge of technology! Step up to a new 70 CM Boomer.

MODEL	424B	410B
Frequency Range, MHz	424-435	424-435
Forward Gain, dBd	18.2	15.0
Front/Back Ratio, dB	30	21
Boom Length, ft (m)	17.4 (5.3)	6 (1.8)
Wavelength	7.6	2.2
Number of Elements	24	12
SWR Typical	1.2:1	1.2:1
Impedance, Ohms	50	50
Beamwidth, deg		
E-Plane	2 x 9.5	2 x 16.5
H-Plane	2 x 11	2 x 14.5
Side Lobe Attenuation, dB	60	60
Turning Radius, ft (m)	10 (3.05)	5.66 (1.73)
Windload, ft² (m²)	2.3 (.21)	.65 (.06)
Connector, Type 50 Ω	N	N
Weight, lb (kg)	6.66 (3.03)	4.5 (2.05)

TYPICAL RADIATION PATTERN

220 MHz 17.2 dBd BW 26°



E-Plane Polar Plot
220B Boomer

Cushcraft

OSCAR SATELLITE ANTENNAS

OSCAR THE EASY WAY

Assembling an OSCAR station is a big job. Cushcraft has made it a lot easier....That's exciting news for hams around the world. A complete Oscar antenna system in one box is yours with the AOP-1. You get the 416TB uplink, the A144-20T downlink, and the A14-TMB mounting boom, all the OSCAR antenna you'll ever need. These BOOMER antennas provide leading performance for both the uplink and downlink functions. The uplink features insulated elements, T-matched twin driven elements, built-in baluns, special phasing harnesses, rear boom mount, and stainless steel hardware. This amazing antenna has true circular polarization right or left, and 12.5 dBd gain to give an extra margin of radiated power to the satellite.

The two meter antenna has been proven by many thousands of amateur satellite contacts from the first OSCAR through the current model. It features excellent performance plus ease of assembly and installation. This crossed Yagi incorporates electrically separated high gain arrays resulting in left or right selectable circular polarization. Each system includes necessary delay lines and connectors. Assembly is simple with the comprehensive instructions supplied. One afternoon is all that is needed to assemble your complete AOP-1 system.

MODEL	10 Element A144-10T	20 Element A144-20T	16 Element 416TB
Frequency, MHz	145.9	145.9	435
2:1 SWR			
Bandwidth, MHz	>2	>1.5	>3
Forward Gain, dBd	10.5	12.2	12.5
3-dB			
Beamwidth, deg	52	38	34
F/B Ratio, dB	20	20	20
Boom Length, in (m)	70 (1.8)	130 (3.3)	80 (2.03)
Longest in	40	40	13.3
Element, (m)	(1.0)	(1.0)	(.34)
Wind Area, ft ² (m ²)	.74 (.07)	1.42 (.13)	.5 (.046)
Weight, lb (kg)	3.5 (1.6)	6.6 (3.0)	4.9 (2.2)
Max Mast OD, in (cm)	1.50 (3.8)	1.50 (3.8)	2.0 (5.0)

OSCAR Pack is your key to enjoyment of the latest phase of worldwide amateur satellite communications.

OSCAR MOUNTING BOOM

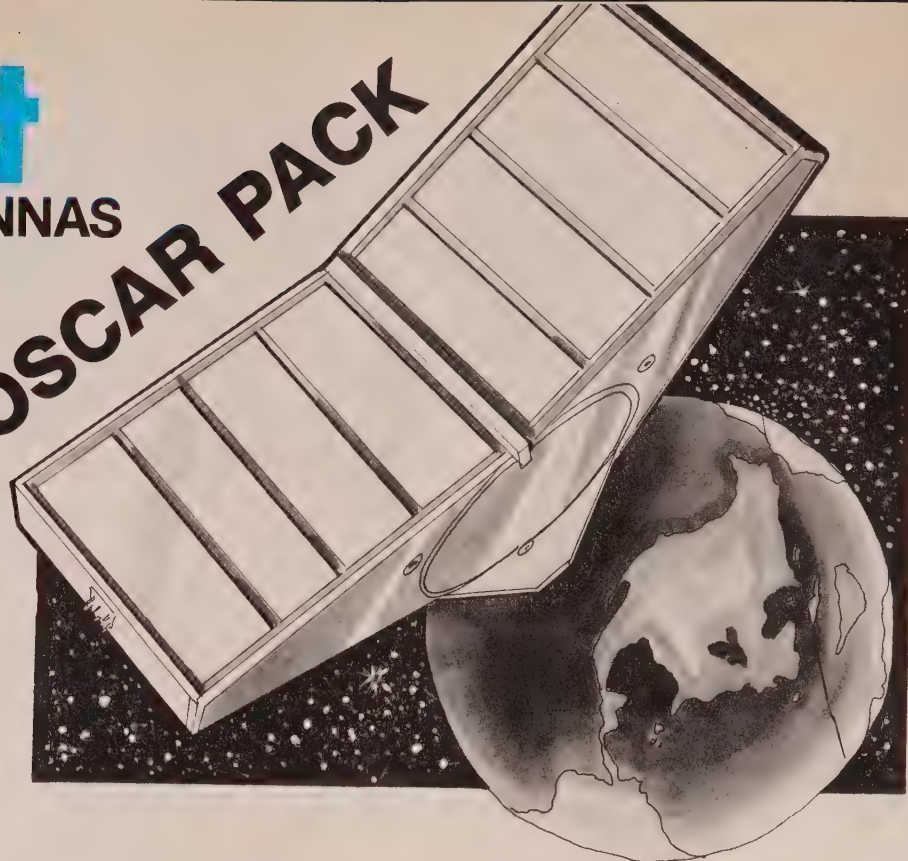
You can mount 2 meter and 70 cm twist antennas on the A14T-MB mounting kit. It has a 4.2 ft (1.3m) support boom with mount plate for the U100 elevation rotator. The easy way to a complete OSCAR station.

NEW OSCAR POLARITY SWITCHER PS4

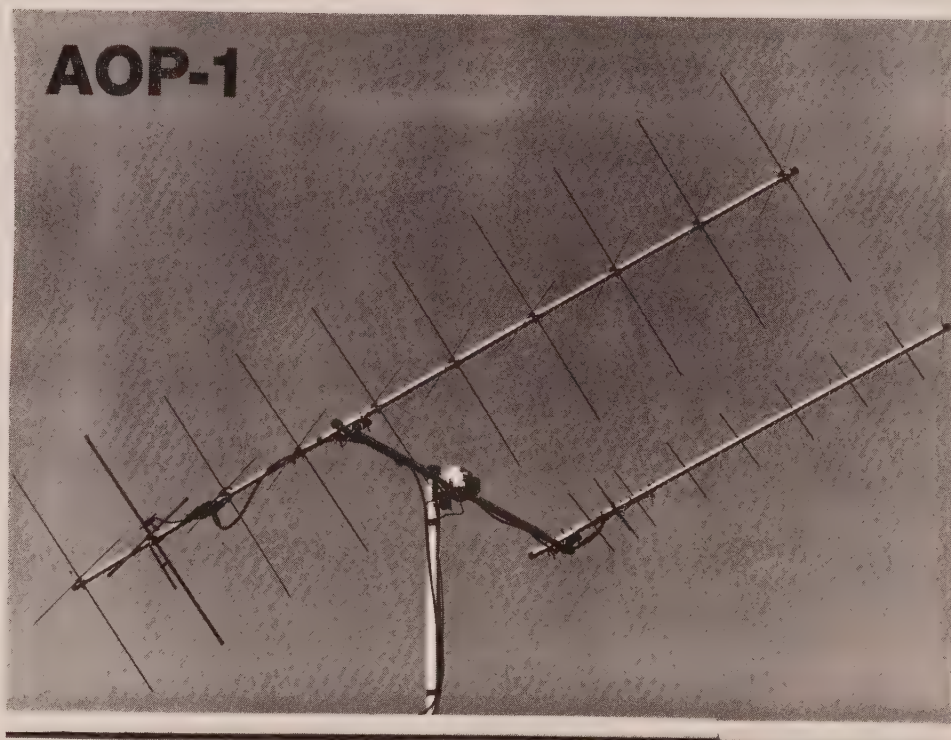
Oscar operation will be more fun with this remote polarity switch mounted on the 416TB. You will access satellites having either circular left or right polarization.

Frequency, MHz	430-440
Input Impedance	50 Ω
SWR	< 1.5:1
Power Handling Watts, cw	100
Coaxial Connector	N female
12 volt DC input	Phono jack, RCA
Size, in	4.6 x 3.6 x 2.3
(cm)	(12 x 9 x 6)
Boom Mount	U-bolt
Weight, lb (kg)	2.5 (1.0)

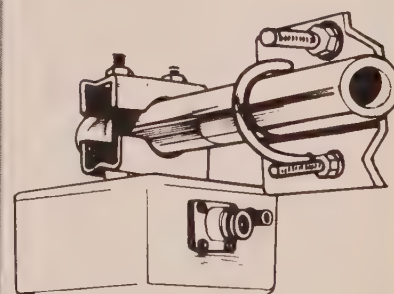
OSCAR PACK



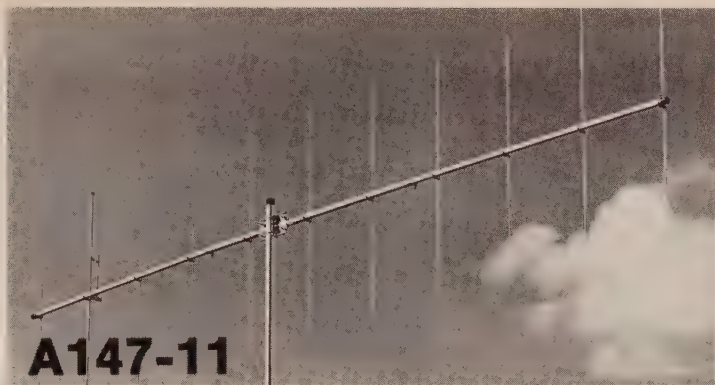
AOP-1



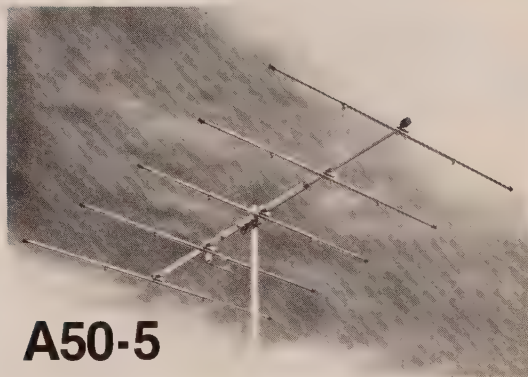
416TB



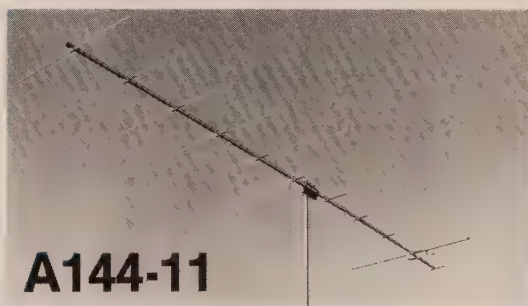
Remote Switching



A147-11



A50-5



A144-11



DX-420

FM YAGIS

Two antennas have been keys to the growth of FM communication: our eleven element A147-11 and Power Pack A147-22 arrays. Why? Because they combine reasonable size with high levels of value and performance. Assembly is quick and easy, and matching is strictly no problem with the adjustable Reddi Match. Our A147 antennas are favorites with hams across the band today. If you're looking for more solid, reliable contacts for your station, A147-11 and A147-22 are smart thinking.

cushcraft

POPULAR VHF/UHF ANTENNAS

LEADERS IN THE HOBBY
FOR MORE THAN 30 YEARS

6 METER BEAMS

Share the excitement of increased 6 meter activity with Cushcraft high performance antennas.

There are model choices available for every ham need. They will give you years of high performance and trouble free service.

MODEL	A50-3	A50-5	A50-6
Elements	3	5	6
2:1 SWR Bandwidth, MHz	>1	>1	>1
Gain, dBd	8	10.5	11.2
F/B Ratio, dB	20	22	24
3-dB Beamwidth, deg	76	56	48
Boom Length, ft (m)	6 (1.8)	12 (3.7)	20 (6.1)
Longest Element, in (m)	117 (3.0)	117 (3.0)	117 (3.0)
Turning Radius, ft (m)	6 (1.8)	7.50 (2.3)	11 (3.4)
Wind Area, ft ² (m ²)	1.80 (.17)	2.74 (.25)	4.46 (.41)
Max Mast OD, in (cm)	1.50 (3.8)	1.50 (3.8)	2.0 (5.1)
Weight, lb (kg)	7 (3.2)	11 (5.0)	18 (8.2)

YAGI STACKING KITS

Coaxial stacking kits double your effective radiated power by stacking two Yagis. Include RG-59/U cable and connectors, accept PL-259 fitting.

Stacking Kit	For Stacking These Antennas	Stacking in Distance (m)
A535-SK	A50-3 or A50-5	110 (2.8)
A561-SK	A50-6	110 (2.8)
A11-SK	A144-11	79 (2.0)
A17-SK	A144-7	79 (2.0)
A21-SK	A220-11	50 (1.3)
A41-SK	A430-11	26 (.66)

1 1/4, 2 METER AND 70 CM BEAMS

You'll be amazed at your rig's performance with any one of these lightweight and durable antennas that are budget priced. They feature evenly spaced, tapered elements for better bandwidth, plus the easy tune Reddi Match for direct 50 ohm feed. The SO-239 fitting has a moisture sealing vinyl boot. You'll be on the air in one easy afternoon.

MODEL	A144-7	A144-11	A220-11	A430-11	A147-11	A147-22
Frequency, MHz	144-146	144-146	220-225	430-435	145.5-148	145.5-148
Elements	7	11	11	11	11	22
2:1 SWR Bandwidth, MHz	3	3	5	10	3	3
Gain, dBd	11.1	13.2	13.2	13.2	13.2	16.2
F/B Ratio, dB	20	20	20	20	20	20
3-dB Beamwidth, deg	46	38	38	38	48	42
Boom Length, in (m)	98 (2.5)	144 (3.7)	102 (2.6)	56 (1.4)	144 (3.6)	79 x 144 (2.1 x 3.6)
Longest Element, in (m)	40.25 (1.0)	40.25 (1.0)	26.25 (.67)	14 (.35)	40 (1.0)	40 (1.0)
Turning Radius, in (m)	59 (1.5)	81 (2.0)	57 (1.4)	32 (0.81)	72 (1.8)	79 (1.5)
Wind Area, ft ² (m ²)	0.81 (0.08)	1.21 (0.11)	0.84 (0.08)	0.42 (0.04)	1.21 (.11)	2.82 (.37)
Max Mast OD, in (mm)	1.50 (38)	1.50 (38)	1.50 (38)	1.50 (38)	1.50 (38)	2 (50)
Weight, lb (kg)	4 (1.8)	6 (2.7)	4 (1.8)	3 (1.4)	6 (2.7)	15 (6.7)

DX-ARRAYS 1 1/4, 2 METER 70 CM

Looking for a versatile antenna to use for ATV, EME, FM or DX-ing the new VUCC? DX-Arrays may be the perfect choice for you. The phased collinear elements give excellent gain and broadband coverage for your favorite activity.

MODEL	DX-120	DX-220	DX-420
Frequency, MHz	144-148	220-225	430-440
2:1 SWR Bandwidth, MHz	>4	>5	>8
Gain, dBd	14.0	14.0	14.0
F/B Ratio, dB	18	18	18
3-dB Beamwidth, deg			
E Plane	45	45	45
H Plane	26	26	26
Height, in (m)	118 (3.0)	78 (2.0)	42 (1.1)
Size: Width, in (m)	75 (1.9)	53 (1.3)	29 (0.74)
Depth, in (m)	30 (0.8)	20 (0.5)	11 (0.28)
Turning Radius, in (m)	48 (1.2)	32 (0.8)	18 (0.46)
Wind Area, ft ² (m ²)	1.53 (.14)	0.90 (.08)	0.64 (.06)
Weight, lb (kg)	8 (3.6)	7 (3.2)	6 (2.7)

Support mast not included

1:1 BALUNS

These 1:1 baluns may be used with the DX-Arrays to decouple rf from the coaxial cable.

DX-1BN	DX-2BN	DX-4BN
144-148 MHz	220-225 MHz	430-440 MHz

FM PRODUCTS FOR YOU

cushcraft

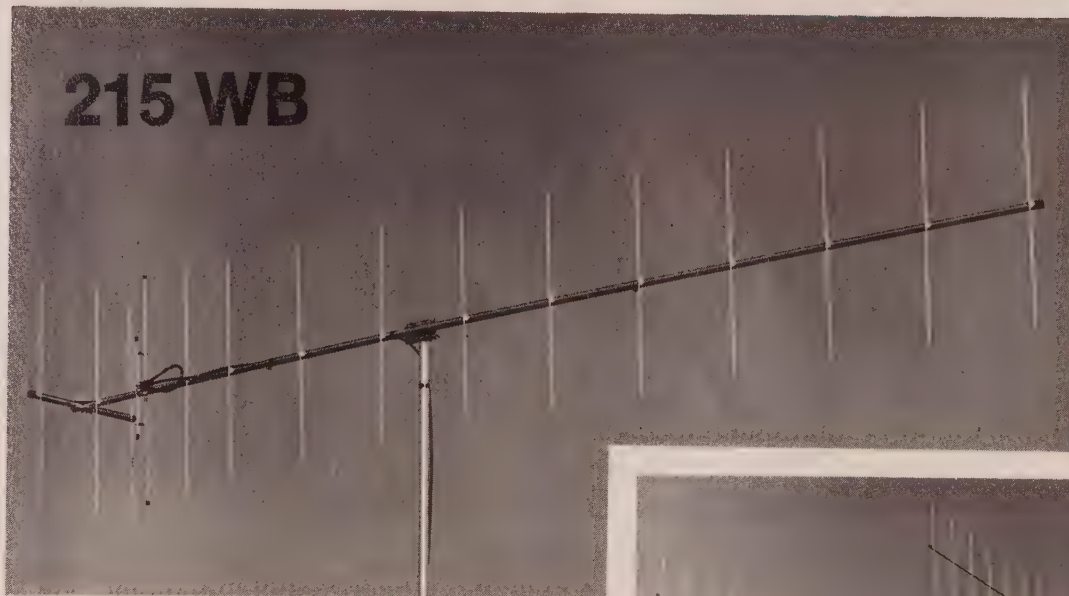
FM BOOMERS

The Cushcraft 215WB features the latest in Wideband technology. The 215WB is high performance from band-edge to band-edge. Whatever your favorite 2 meter mode may be, the 215WB is for you. Local and distant repeaters on FM, tropo communications on SSB and EME on CW are all easier with the 215WB. Enjoy your hobby more with a 2 meter Cushcraft Wideband Boomer. Harnesses are available for stacking 215WBs in various configurations.



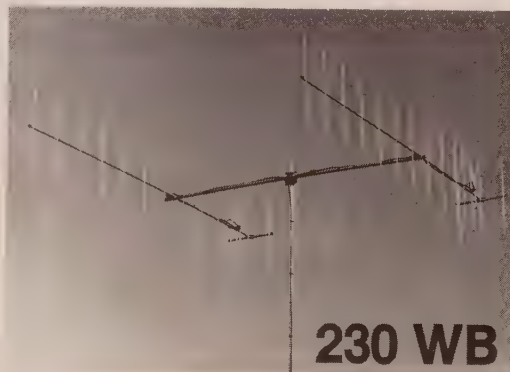
Ringo

215 WB



For the highest gain FM antenna in the world, select the 230WB. This array of two 215WB Wideband Boomers in the vertically polarized pair makes FM DX easy. The 230WB includes the antennas, a horizontal support frame, RG8/U cable, power dividers and all stainless steel hardware.

230 WB



SPECIFICATIONS

MODEL	215WB	230WB	124WB	224WB	225WB
Frequency Range, MHz	144-148	144-148	144-148	220-225	220-225
Elements	15	30	4	4	15
F/B Ratio, dB	24	24	24	24	24
Forward Gain, dBd	15.5	18.5	10.2	10.2	15.5
2:1 SWR Bandwidth, MHz	4	4	4	5	5
3 dB Beamwidth, deg	36	18	83	83	36
Boom Length, ft (m)	15 (4.57)	15 x 11 (4.57)	4 (1.22)	3 (.91)	10 (3.05)
Long Element, in (m)	39.5 (1.0)	39.5 (1.0)	40.75 (1.04)	26.7 (.68)	26.3 (.67)
Turning Radius, ft (m)	7.5 (2.29)	9.5 (2.9)	4 (1.22)	2.75 (.84)	5.8 (1.78)
Wind Area, ft² (m²)	1.7 (.16)	4.0 (.37)	.34 (.034)	0.23 (.021)	0.95 (.09)
Max Mast OD, in (cm)	2 (5)	2 (5)	2 (5)	2 (5)	2 (5)
Weight, lb (kg)	8 (3.63)	22 (9.98)	3 (1.36)	1.7 (.77)	5.25 (2.4)

NEW 124 WB

NEW BOOMERS FOR 220 MHz or 144 MHz

The entire band is at your command with these new wideband Boomers. They feature the Boomer T match, with coaxial balun for precise matching. Booms and elements are high quality aluminum while all fasteners are stainless steel. The four element models are rear mounted. The 15 element 220 MHz model has all of the features of our very popular 215 WB Boomer.

ARX 2B

WORLD'S MOST POPULAR 2 METER FM ANTENNA **Ranger II**

Ringo Ranger II has more gain, less windload, and more mechanical integrity than other 2 meter antennas. You'll find FM, simplex or repeater operation more satisfying with this amazing antenna.

Ringo Ranger II is the latest refinement of the original W1BX Ringo. It has three $5/8\lambda$ radiating sections and an adjustable $1/8\lambda$ phasing stub. The design gives a very low angle radiation for more realized gain and a solid signal over your entire coverage area. It is the only fully adjustable 2 meter antenna, allowing you to maximize the gain for your QTH.

Ringo Ranger II has a built-in lightning arrester for added safety plus static suppression. The high strength UV stabilized insulators and heavy wall tubing give long term all weather performance. The slim profile design reduces weight and windload on your support mast. Fewer seams, joints, and connections mean no internal noise generation so you will have positive full quieting signals. The $1/4\lambda$ decoupling radials eliminate any chance of feedline radiation.

There are more than 500,000 Ringo antennas used worldwide in every possible service. It is this experience that makes the Ringo Ranger II your best antenna choice.

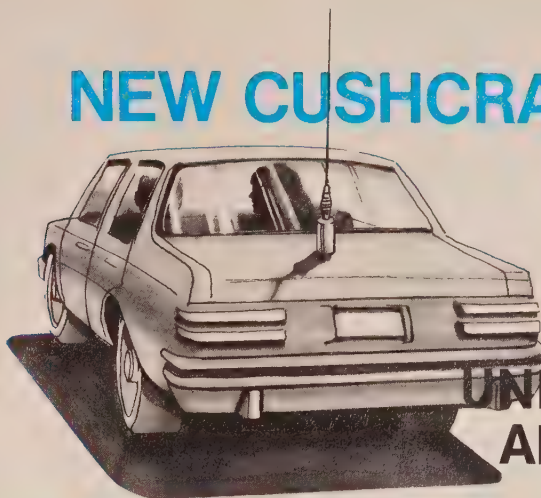
Ringo Ranger II Performance Specifications

Model	ARX-2B	ARX-220B	ARX-450B
Frequency, MHz	134-164	220-225	435-450
2:1 SWR Bandwidth, MHz	>3	>5	>10
Height, in (m)	168 (4.3)	112 (2.8)	59 (1.5)
Wind Area, ft ² (m ²)	.50 (.05)	.3 (.03)	.2 (.02)
Max Mast OD, in (cm)	1 1/4 (3.2)	1 1/4 (3.2)	1 (2.5)
Weight, lb (kg)	6 (2.7)	5 (2.3)	5 (2.3)
Power Rating, Watts	2000	500	500

5.5 dBd Gain 7.0 dB ref. $1/4\lambda$ whip	Delivers The Performance You Expect
Complete Ham Band Coverage	DC Ground For Lightning Protection
Low Angle Radiation	Stainless Steel Hardware
Adjustable For Marine, Commercial, Public Service	Mounts Easily With Other Antennas
6063-T832 Aluminum Tubing	Slim Profile Design
	Vinyl Connector Boot
	Easy To Assemble

New 70 cm N connector, Ringo Ranger II features a low loss weather proof N connector for improved performance. Specifications are the same as the 435-450 MHz model shown above. Order model ARX-450 BN.

NEW CUSHCRAFT/SIGNALS MOBILE AND PORTABLE ANTENNAS.



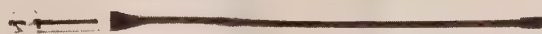
**UNMATCHED QUALITY
AND PERFORMANCE**

SIGFLEX WALKIE ANTENNAS

A long, long life at top performance. Whether your choice is the BNC or thread connector you'll be thoroughly impressed by the consistently great results.



2 METER $5/8$ 3 dB TELESCOPING



UHF 3dB 12 INCH LONG



MINI DUCKS

UHF 2 INCH VHF 3 INCH



UHF AND VHF 6 INCH

MOBILE ANTENNAS

For years the choice for performance and quality of law enforcement, and mobile communications agencies all over the world, Cushcraft/Signals mobile antennas are now on the market for the active ham.

Standard features include silver-plated loading coils...stainless steel...leak proof and shock proof ABS coil cases...non-seizing hardware...RG58 A/U cable, with silver plated coaxial connectors. Every antenna package includes both our straight whip fitting and stainless steel spring for your convenient choice of installation.

3 dB Gain VHF $5/8\lambda$ 5 dB Gain UHF Mobiles

Model No.	Frequency MHz	Whip Length IN	Whip Length M	Description
CS50M	46-54	49	1.25	Magnetic
CS50T	46-54	49	1.25	Trunk Lip
CS50	46-54	49	1.25	3/4" Hole
CS147M	144-174	49	1.25	Magnetic
CS147T	144-174	49	1.25	Trunk Lip
CS147	144-174	49	1.25	3/4" Hole
CS220M	220-225	33	.84	Magnetic
CS220T	220-225	33	.84	Trunk Lip
CS220	220-225	33	.84	3/4" Hole
CS450M	435-470	29.5	.75	Magnetic
CS450T	435-470	29.5	.75	Trunk Lip
CS450	435-470	29.5	.75	3/4" Hole

CUSHCRAFT/SIGFLEX SELECTOR CHART

Frequency MHz	Connector Type	Model 6 In Duck	Model Mini Duck	Model 3dB Gain
144-148	BNC	BN141	BN141S	BN141W
144-148	5/16-32 Thread	HT141	HT141S	—
220-225	BNC	BN220	BN220S	—
220-225	5/16-32 Thread	HT220	HT220S	—
430-450	BNC	BN440B	BN440C	BN440U
430-450	5/16-32 Thread	HT440B	HT440C	—

MOUNT OPTIONS

Magnetic Mount

The Cushcraft/Signals 90 pound permanent magnet anchors the antenna to your vehicle.

Trunk Lip Mount

Tops in popularity with the radiophone industry because of its low profile, this Cushcraft/Signals mount is simple to install on your trunk lid or hatchback.



cushcraft

FM SPECTACULAR

Antennas for Repeater
and Home Station

NEW

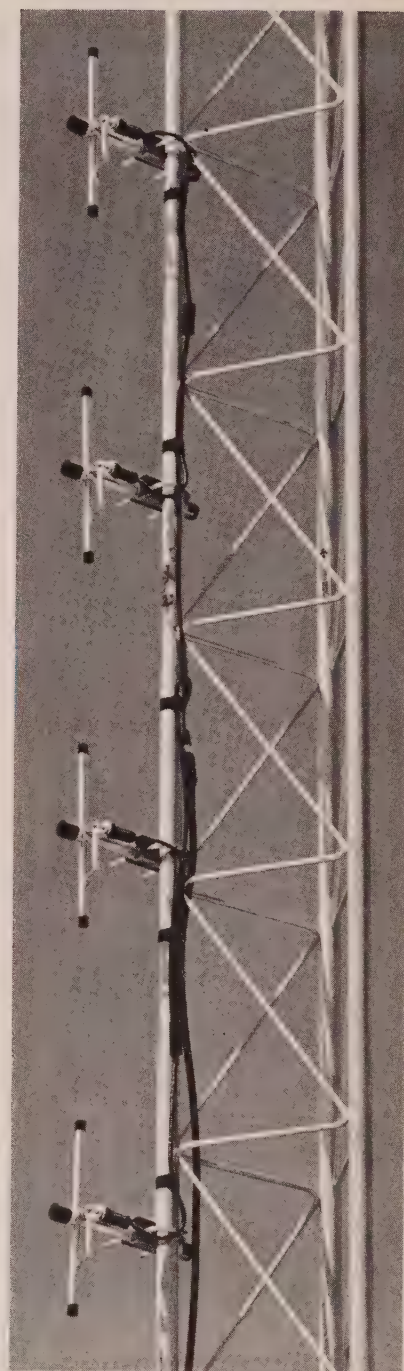
**IMPROVED RUGGEDIZED FOUR POLES
FOR HOME OR REPEATERS**



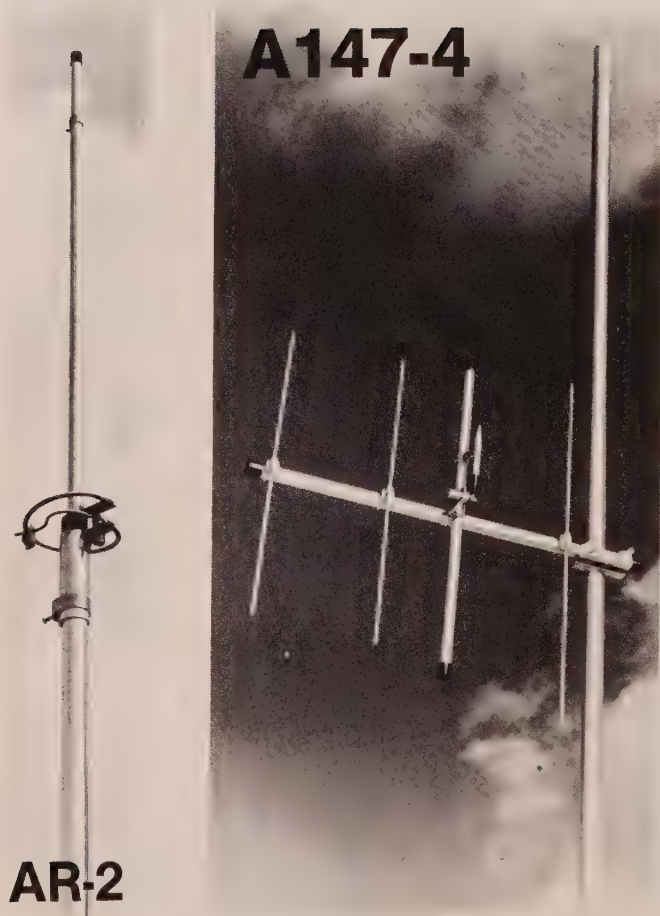
A147-20T

A147-20T THE FM/SSB CROSS YAGI

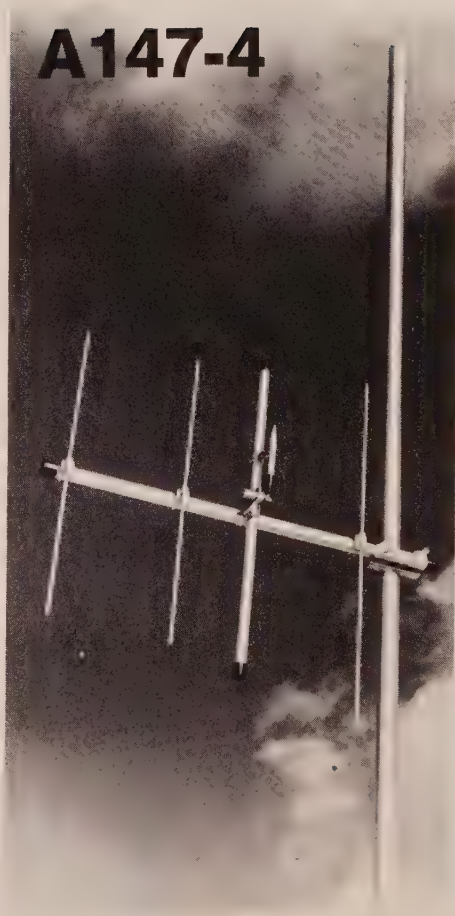
The answer for multi-mode transceivers, ten vertically-polarized elements for 11.1 dBd gain on FM (145-148 MHz), and ten horizontally polarized elements for 11.1 dBd gain for SSB and CW operation (144-146 MHz). Boom length, 130 in. (3.3m); longest element, 40 in. (1.0m); wind area 1.42 ft.² (.13m²); mast size 1 1/2 in. (38mm).



AFM-4DA



AR-2



A147-4



ARX-2



A449-6



FM RINGOS

Our Original WIBX Ringo Is Used The World Over For Every Possible Service

If you're looking for a combination of compact size and great bandwidth, Ringo $\frac{1}{2}$ λ antennas with 3.75 dB gain can make a lot of sense. Features include a low angle of radiation and direct dc ground for lightning protection.

Our FM Ringos are super easy to assemble and mount, and can even be used indoors when outside mounting space is not available. No radials are needed. There are models for all popular VHF and UHF frequencies.

MODEL	AR-6	AR-2	AR-10	AR-220	AR-450
Frequency, MHz	50-54	135-160	28-29.7	220-225	440-460
2:1 SWR Bandwidth, MHz	2	10	1	10	20
Power Rating, Watts	1000	1000	1000	500	500
Wind Area, ft ² (m ²)	.37 (.03)	.21 (.02)	1.68 (.17)	.2 (.02)	.1 (.01)
Max Mast OD, in (cm)	1.25 (3.2)	1.25 (3.2)	1.25 (3.2)	1.25 (3.2)	1 (2.5)

NEW

FOUR POLE ARRAYS

Cushcraft's four $\frac{1}{2}$ λ dipole array is excellent for use as a primary repeater antenna or as a powerful and flexible base antenna. The array gives 6 dBd omni, 9 dBd elliptical gain, it is complete with dipoles, hardware, mounting booms, and harness for 50 Ω feed.

Redesigned with strong through the boom dipole mounting. They direct side mount to tower legs or on a separate support mast, which can be 1 1/2 inch to 2 inch steel pipe. The support mast is not supplied.

MODEL	AFM-4DA	AFM-24DA	AFM-44DA
Frequency, MHz	144-148	220-225	435-450
2:1 SWR Bandwidth, MHz	>10	>15	>20
Power Rating, Watts	1000	1000	1000
Overall Height, ft (m)	23 (7.0)	15 (4.5)	8 (2.4)
Wind Area, ft ² (m ²)	2.58 (.24)	1.85 (.17)	1.13 (.11)
Max Mast OD, in (cm)	2 (5.1)	2 (5.1)	2 (5.1)

Support Mast Not Included.

THE RINGO RANGER

A Fantastic Two Meter Antenna

The Ringo Ranger should be your antenna where good gain is required, but space does not allow extra height and decoupling radials.

Gain 4.5 dBd, Frequency range 137-160 MHz, Bandwidth 2:1 SWR, >6 MHz, Length 112 in (2.8m), Wind area .33 ft² (.03 m²), Max mast OD 1.25 in (3.2 cm), Weight 4 lbs (1.8 kg), Power handling 1000 watts. Model No. ARX-2.

4-6-7-11 ELEMENT FM YAGIS

Cushcraft FM Yagis are specifically cut for FM amateur frequencies and vertical polarization. Our four and six element models have end brackets for tower or mast side mounting. They feature Reddi Match driven elements with direct 50 ohm feed, compact size, good gain, and front-to-back ratio. And you can count on quick and easy assembly.

YAGI SPECIFICATIONS

MODEL	A147-4	A220-7	A449-6	A449-11
Frequency, MHz	145.5-148	220-225	440-450	440-450
2:1 SWR Bandwidth, MHz	>4	>5	>10	>10
Gain, dBd	10.0	11.0	10.5	13.2
F/B Ratio, dB	18	20	18	20
3-dB Beamwidth, deg	66	57	60	48
Boom Length, in (m)	44 (1.1)	69 (1.7)	35 (.89)	60 (1.5)
Longest Element, in (m)	40 (1.0)	27 (.66)	13 (.33)	13 (.33)
Turning Radius, in (m)	44 (1.1)	69 (1.7)	18 (.46)	60 (1.5)
Wind Area, ft ² (m ²)	.43 (.04)	.48 (.04)	.30 (.03)	.39 (.04)
Max Mast OD, in (cm)	2 (5.0)	2 (5.0)	2 (5.0)	1.50 (3.8)
Weight, lb (kg)	3 (1.4)	2 (.9)	3 (1.4)	4 (1.8)

YAGI STACKING KITS

For vertical polarization of two Yagis VPK models are complete with mounting boom harness and hardware.

Antenna	Frequency MHz	Complete Kit	Harness Only
A147-4	144.5-148	A14-VPK	A14-SK
A147-11	144.5-148	A147-VPK	A147-SK
A220-7	220-225	—	A21-SK
A449-6	440-450	—	A449-SK
A449-11	440-450	A449-VPK	A449-SK

cushcraft

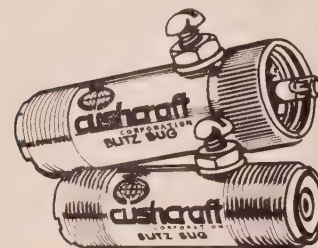
STATION ACCESSORIES



NEW FAST ACTION GAS DISCHARGE LIGHTNING ARRESTERS

Protect your valuable equipment while reducing atmospheric noise with these sophisticated new lightning arresters. They feature fast action, replaceable gas discharge elements. Superior design and manufacturing gives better performance with less insertion loss. There are four high performance models.

LAC4	200 watt with SO-239 connectors
LAC4H	2kw with SO-239 connectors
LAC4N	200 watt with N-connectors
LAC4NH	2kw with N-connectors
LC2	200 watt replacement cartridge
LC2KW	2kw replacement cartridge

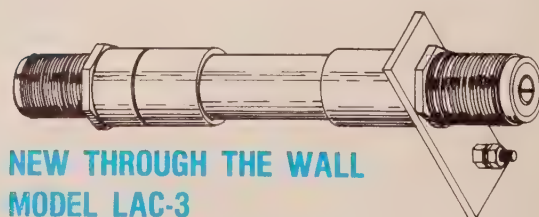


BLITZ BUG LIGHTNING ARRESTERS

For a top performing in-line coaxial lightning arrester, we recommend the BLITZ BUG. The Blitz Bug's three point static discharge ring is protected by U.S. Patent 2,922, 913. Other features: a sealed air chamber, constant static drain, and controlled voltage discharge. The Blitz Bug is rated at 2 KW PEP to 500 MHz with negligible insertion loss.

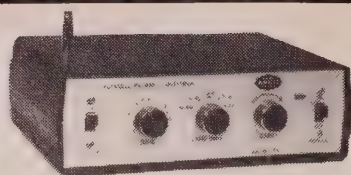
MODEL LAC-1 with UHF fittings to accept one PL-259 and one SO-239.

MODEL LAC-2 with UHF fittings to accept two PL-259 connectors.

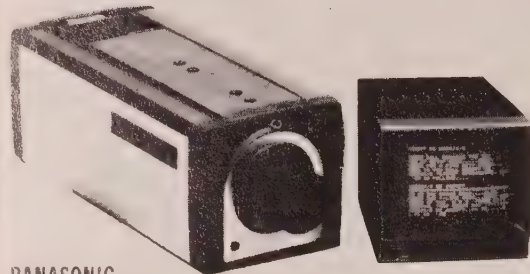


NEW THROUGH THE WALL MODEL LAC-3

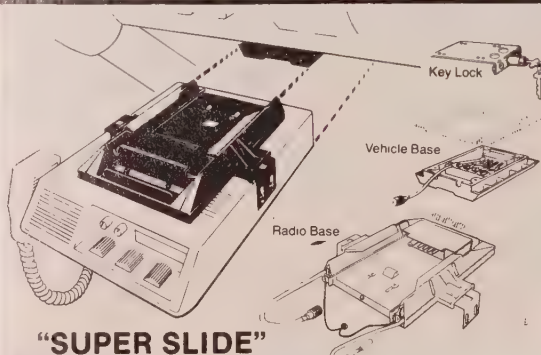
A convenient way to run your coax through the wall, including lightning protection. Wall thickness 3 to 5 inches, takes two PL-259 connectors.



AMECO TPA Use as a preamplifier to improve gain of a receiver or as an indoor active antenna when an outdoor antenna is not available. Covers 220KHz to 20 MHz, including amateur bands. Tuned dual-gate FET RF amplifier gives low noise and over 20dB of gain. Input matches most antennas - long wire, 300 ohm and random length antennas can be used with good results. Uses 9V battery or AMECO PT-9 AC adaptor, not included..... **\$69⁹⁵**



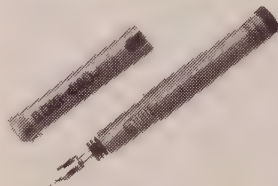
PANASONIC
WV-1410 Black and White TV camera for closed circuit, amateur TV, etc. 2/3" Vidicon® with 525-lines/60 fields/30 frames, and 600 lines resolution. 1.0V p-p comp. output @ 75 ohms. C-type lens mt., 120VAC. 3 1/8" h x 3 1/8" w x 8 3/8" d..... **\$189⁹⁵**
WVLM-16 Lens only for WV-1410..... **29⁰⁰**
MN-815 wide angle Lens only for WV-1410 **99⁹⁵**
TR-930 9" Black and White Monitor for closed circuit, Amateur TV, RTTY, computers, etc. 700 lines resolution, 1.0V p-p video input - Hi-Z or 75 ohms. 120VAC, 9" h x 8 3/8" w x 9 3/8" d ... **\$189⁹⁵**



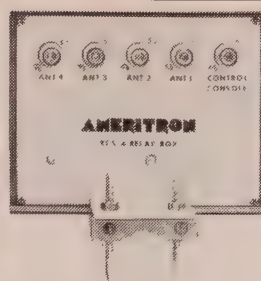
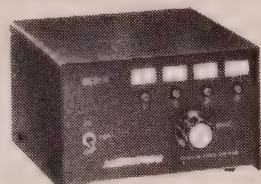
"SUPER SLIDE" Radio Mount System

GAMBER-JOHNSON SS-100 Radio slides in and out of mount instantly without having to attach or remove cables. Power, Ground, Antenna, and Speaker leads connect and disconnect automatically. RF components are designed to maintain low VSWR up to 500 MHz. Adapts to most radios. Bracket adjusts to case and can be attached above or below radio..... **\$39⁹⁵**

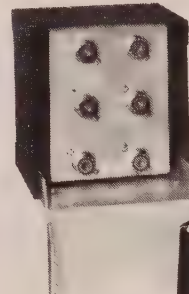
PORTOSOL Butane soldering iron. Fuels with ordinary lighter butane. Flint-wheel in cap ignites catalytic element in tip, reaches soldering temp. in 25 seconds. Temperature adjustable equivalent to 10-60W iron. Each fill provides about 60-min. of operation. 7" l x 3/4" dia., 2 oz..... **\$34⁹⁵**



AMERITRON Remote Coax Switches



RCS-4 Permits selection of four different antennas with only one coaxial feedline, and no control cable. The weatherproof switching box can be remotely located on a tower, mast or wall. The control console locates at your operating position and supplies all control voltages directly through the coax thereby eliminating the need for an extra control cable. Usable from 1.8 to 30MHz with VSWR under 1:1 and loss less than 0.5dB. Handles legal power limit .. **\$124⁹⁵**



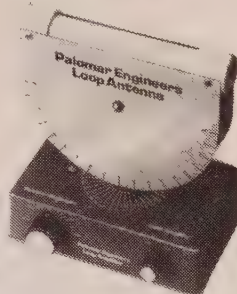
RCS-8V Usable up to 150 MHz and requires separate control cable such as BELDEN 8448 rotor cable **\$124⁹⁵**



PALOMAR LA-1 Loop Antenna

Loops pick-up far less noise than other antennas, and they really null out interference. This compact desk-top unit features a tunable wideband amplifier that gives 20dB gain, and plug-in loops with an exclusive tilt feature that helps tune for deeper nulls and lowest noise..... **\$84⁹⁵**

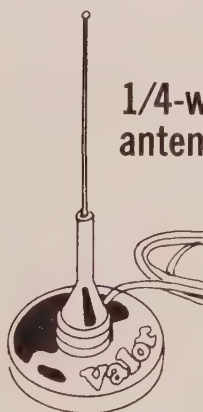
Loops for 10-40 kHz, 40-150 kHz, 150-550 kHz, 550-1600 kHz, 1.6-5 MHz, and 5-15 MHz.... each **\$62⁹⁵**



VALOR 1/4-wave Magnetic Mount antenna for 144-450 MHz

- Quality stainless steel whip
- Trim to your frequency
- Strong magnetic mount
- Handles 200 WATTS
- 12 ft. cable, PL-259 or BNC

VAA-002 (PL-259)... **\$16⁹⁵**
VAA-002BN (BNC) .. **19⁹⁵**



USE
YOUR
CREDIT
CARD



ICOM Digital Multimeters

DM-10 (top) Combination Probe/Multimeter which allows one-hand circuit measurements. DC volts from .1mV to 500V, AC volts from 1mV to 500V, resistance from .1 ohm to 20 megohms. 3.5 digit LCD reads to 1999. "Beep" function indicates continuity. Data hold button allows the reading to be stored for later reference. Samples two times per second. 5.9" l x 1.2" h **\$58⁹⁵**

DM-20 (bottom) Pocket-sized digital multimeter uses dual integration to measure AC and DC volts from 1 mV to 450 volts, and resistance from .1 ohms to 2 megohms with auto or manual ranging. "Beep" function indicates continuity. Samples two times per second. With test leads. 2" h x 4.2" w x 0.4" d .. **\$32⁹⁵**

Bank (wire) transfers should be made to the following banks.

For Milwaukee store	M&I Marshall & Isley Bank Milwaukee, Wisconsin Routing # 075000051, further credit to M&I Northern Bank, for credit to: Amateur Electronic Supply, Inc. Account # 10-01-6953
For Wickliffe store	Society National Bank Wickliffe Branch 29310 Euclid Avenue Wickliffe, Ohio 44092 Routing # 041001039 for credit to: Amateur Electronic Supply, Inc. Account # 30-005-7505
For Orlando store	Barnett Bank of Orlando Fashion Square Branch Orlando, Florida Routing # 063103193 for credit to: Amateur Electronic Supply, Inc. Account # 1300009536

Order Toll Free: 1-800-558-0411 In Wisconsin (outside Milwaukee Metro Area) **1-800-242-5195**

AMATEUR ELECTRONIC SUPPLY[®] Inc.

4828 W. Fond du Lac Avenue; Milwaukee, WI 53216 • Phone (414) 442-4200

AES[®] BRANCH STORES

Associate Store

WICKLIFFE, Ohio 44092
28940 Euclid Avenue
Phone (216) 585-7388
Ohio WATS 1-800-362-0290
Outside Ohio 1-800-321-3594

ORLANDO, Fla. 32803
621 Commonwealth Ave.
Phone (305) 894-3238
Fla. WATS 1-800-432-9424
Outside Florida 1-800-327-1917

CLEARWATER, Fla. 34625
1898 Drew Street
Phone (813) 461-4267
No In-State WATS
No Nationwide WATS

LAS VEGAS, Nev. 89106
1072 N. Rancho Drive
Phone (702) 647-3114
No In-State WATS
Outside Nevada 1-800-634-6227

CHICAGO, Illinois 60630
ERICKSON COMMUNICATIONS
5456 N. Milwaukee Avenue
Phone (312) 631-5181
15 min. from O'Hare!

A pair of scissors is shown cutting along a vertical dashed line. The scissors are positioned diagonally, with the blades pointing towards the bottom left. The dashed line is vertical and runs parallel to the left edge of the page. The scissors are dark in color, and the blades are sharp. The background is a light, textured surface.

Work # _____ Hours: _____

SPECIAL INSTRUCTIONS:

IF YOU HAVE MOVED since your last order, please show your old address below:

★ Because of our Branch Store locations, we are also required to collect Sales Tax on shipments to Florida (5%), Ohio (5.5%) & Nevada (6%).

Improve VHF/UHF Performance with the

IsoPoleTM Antennas

Outstanding mechanical and electronic design makes the IsoPole the only logical choice for a VHF base station, especially for Packet operation. All Isopole antennas yield the maximum on the horizon gain attainable for their respective lengths. Exceptional decoupling from the feed line results in simple tuning and a significant reduction in TVI potential. The Isopole also significantly reduces the potential for computer RF hash pickup on the coax outside shield surface. The IsoPole antennas are all impedance matched in the factory so no field tuning is required.

The Isopoles have the broadest frequency coverage of any comparable VHF base station

antenna. This means no loss of power output from one end of the band to the other, when used with SWR protected solid state transceivers. Typical SWR is 1.4 to 1 or better across the entire band. A standard 50 Ohm SO-239 connector is recessed within the base sleeve (fully weather protected). With the IsoPole you will not experience aggravating deviation in SWR with changes in weather. The impedance matching network is weather sealed and designed for maximum legal power. The aerodynamic cones are the only appreciable wind load and are attached directly to the support (a standard TV mast which is not supplied).

ISO 144
ISO 220

Specifications

MODEL	144	220	440
Freq. Coverage (Mhz)	135-160	210-230	415-465
Impedance	50 Ohm	50 Ohm	50 Ohm
2.1 VSWR bandwidth	>12Mhz @ 146Mhz	>15Mhz @ 220Mhz	>22Mhz @ 435Mhz
Power Rating	1 kw	1 kw	1 kw
Gain* (actual measurement)	3 dbd	3 dbd	3 dbd
Radiating Element Length	125.5" (3.2m)	79.25" (2m)	46" (1.2m)
Wind Area	<1 sq. ft.	<.75 sq. ft.	<.20 sq. ft.
Maximum Mast OD	1 1/4" (32mm)	1 1/4" (32mm)	1 1/4" (32mm)
Minimum Mast Length**	8 ft. (2.4m)	5 1/2 ft. (1.6m)	6" (150mm)
Shipping Weight	5lbs.	4 lbs.	2.5 lbs.
Coax Connector	PL 259	PL 259	Type N
AES® PRICE	\$49⁹⁵	\$49⁹⁵	\$64⁹⁵

*dbd — db gain over a dipole in free space

**mast not included

ISO 440

PK-87™ Packet Controller

More than TNC-2 Compatible

AMATEUR NET PRICE

\$ 179⁹⁵



With the introduction of the TAPR TNC 2 in April 1985 the Tucson group set a new standard for Packet only controllers. Now AEA brings you another breakthrough with the PK-87. While many manufacturers continue to sell clones of the TNC 2, AEA has improved on the TNC 2 program with several new software features.

The Host mode of the new PK-87 can be utilized to improve terminal program operation. AEA has a recommended list of programs for IBM, Apple, Radio Shack, and other computers that include split screen display, type ahead buffer, data storage and most of the features requested by Packet operators.

Four new commands in the PK-87 allow you to restrict the use of your station for both connects and as a digipeater. The Mailbox monitoring command allows monitoring without displaying the callsign headers, while standard monitoring includes both MFROM and MTO lists.

Software commands are used to select the terminal baud rate, the Packet baud rate (45-9600), and modem tones 1070/1270, 2025/2225, 1200/2200. While the PK-87 can be used for HF operation, AEA recommends the optional PM-1 packet modem for low band use.

Hardware improvements also make the PK-87 stand above the rest. In addition to standard Data Carrier Detect, Push to talk, Status, and Connect indicators, the PK-87 has front panel LEDs for operational mode (Converse, Transparent, Command) and multiple connects. The PK-87 uses a Zilog 8530 SCC for hardware HDLC. The Modem disconnect of the PK-87 guarantees compatibility with high speed modems in the future.

A new generation of Packet terminal node controllers began in 1987 with the new AEA PK-87. Join the Packet Radio revolution today. Contact your local AEA Authorized Dealer and order your new PK-87.

Specifications

Operating Mode

- AX.25V2L2 Packet (previous versions supported)
- Half/Full Duplex

Modem

- Input Sensitivity: 5 mVRMS
- Input Dynamic Range: 5 to 770 mVRMS
- Bypassable via Ext Modem connector for use with external modem
- Hardware Watch Dog Timer — 1 minute timeout
- Demodulator: AMD 7910 World Chip
- Modulator: Phase-continuous sinewave AFSK generator
- Modulator output level: 5-100 mVRMS, rear panel adjustable

Processor System

- Processor: Zilog Z80
- RAM: battery backed, 16K Bytes
- ROM: 32K Bytes
- Hardware HDLC: Zilog 8530 SCC

Rear Panel Input/Output Connections

- Radio Interface: 5 pin; Receive audio, Transmit audio, PTT, Auxiliary squelch, Ground
- External Modem: 5 pin; Transmit data, Receive data, carrier detect, Clock, Ground
- Terminal Interface: RS-232C 25 pin DB25 connector
- Terminal data rates: 300, 1200, 2400, 4800, 9600 (with autobaud select)

Front Panel Indicators

- Indicators: Operational Mode; Converse, Transparent, Command, Send, Data Carrier Detect, Status, Connect, Multiple Connect

Power Requirements

- +12 to +16 VDC @ 550ma, 2.1 mm power connector, center positive
- AC-1 120 VAC adapter supplied

Physical

- 9.4" x 5.74" x 1.8", 3 lbs.

Accessories

AC -1 Power Adapter

\$14⁹⁵

The AC-1 nominal 12 VDC wall adapter is a suitable power supply for all AEA products requiring 12 VDC at 600 ma or less current. The AC-1 comes with a six foot power cord and a standard 2.1 mm (center pin positive) coaxial power plug that mates with all AEA products. The AC-1 can also be used for any load requiring filtered, but unregulated nominal 12 VDC at 600 ma or less.

AC-4 Power Adapter

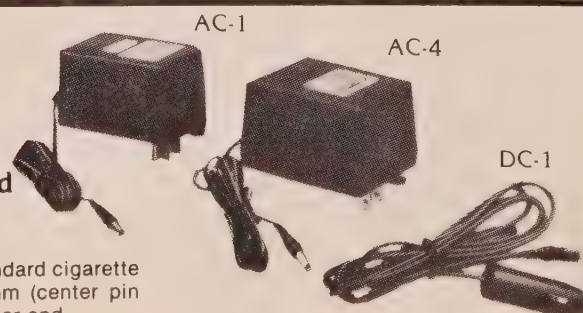
\$24⁹⁵

Same as AC-1 except 1 amp output.

DC-1 Cigarette Lighter Cord

\$5⁹⁵

The DC-1 is a fused cable with a standard cigarette lighter plug on one end and a 2.1 mm (center pin positive) coaxial power plug on the other end.





AMATEUR NET PRICE

\$299.95

SIX*

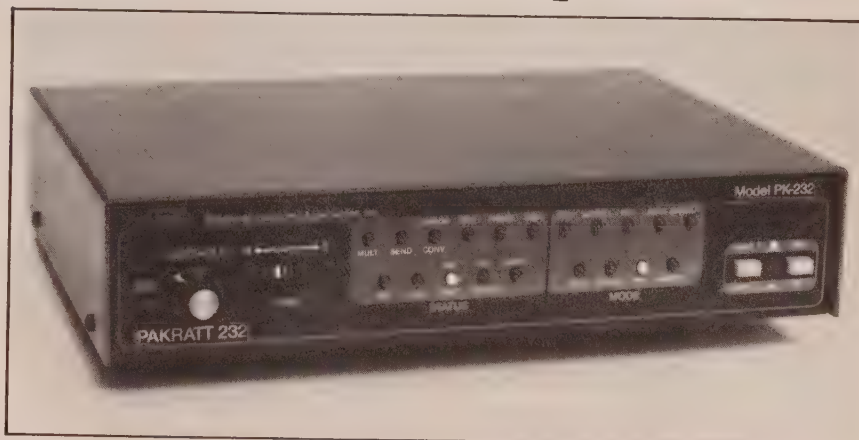
PK-232™ Multimode Data Controller

FIVE MODES with any RS-232 Computer or Terminal

The PK-232 makes any RS-232 compatible computer or terminal the complete Amateur digital operating position. All decoding, signal processing, and protocol software, for Morse, Baudot, ASCII, AMTOR, and Packet is on ROM in the PK-232. Only a simple terminal program is required to interface the computer or terminal to the PK-232. The PK-232 is a Z-80A based system and has hardware HDLC (High Level Data Link Control) using the Zilog 8530 SCC. The internal modem of the PK-232 can transmit Packet at rates from 24 to 1200 baud, with the option of using an external modem for 2400, 4800, and 9600 baud.

The PK-232 also includes a no compromise VHF/HF/CW modem with an eight pole bandpass filter followed by a limiter discriminator with automatic threshold correction. Transmitter tones are low distortion sinewave phase continuous AFSK, Bell 202 Standard (1200-2200 Hz) for VHF, and 2110-2310 Hz (compatible with 170 Hz shift RTTY) for HF. Experienced HF Packeteers worldwide are reporting the PK-232 to have the best Packet modem available.

In addition to all the standard AEA program features for CW/RTTY/ASCII/AMTOR, like a large type ahead buffer (750 characters) and receive text buffer (2700 characters), automatic CW speed tracking, and all modes of AMTOR; you'll find lots of new features. The PK-232 software includes a computer host mode and



the ability to transmit and receive raw HDLC. The new MBX (mailbox) parameter allows print/display of only the information portion of packets received from a Packet Bulletin Board in the monitor mode. Additional parameters (CFROM and CREJECT) give selectable connect privileges, and (DFROM and DREJECT) can restrict the station use as a digipeater.

* Weather Fax Mode Included

All PK-232s now include a special program enhancement for printing radio transmitted weather maps with any compatible parallel printer. The computer/printer cable is included with the PK-232, and a special manual appendix describes FAX operation. Only the PK-232 offers six modes in a single controller.

Specifications

Modem

- Input Dynamic Range: 5mv to 500 mVRMS
- Bypassable via Ext Modem connector for use with external modem
- Hardware Watch Dog Timer — 1 minute timeout
- Onboard calibration software and hardware
- Demodulator: 8 pole bandpass filter, limiter, 4 pole discriminator, 5 pole post detection low pass filter.
- VHF Packet: 1700 Hz center frequency, 2600 Hz BW
- HF (non CW): 2210 Hz center frequency, 450 Hz BW
- CW: 800 Hz center frequency, 200 Hz BW
- Modulator: Phase continuous sinewave AFSK generator
- Modulator output level: 5-100 mVRMS, rear panel adjustable

Packet Protocol

- AX.25 V2L2 (previous versions supported)

Processor System

- Processor: Zilog Z80
- RAM: battery backed, 16KBytes
- ROM: 32KBytes, 48KBytes max
- Hardware HDLC: Zilog 8530 SCC

Rear Panel Input/Output Connections

- Radio Interfaces: Two 5 pin; front panel selectable (receive audio, transmit audio, PTT, Auxiliary squelch, Ground)

- External Modem: 5 pin; Transmit data, Receive data, Carrier detect, Clock, Ground.
- FSK Outputs: normal and reverse
- Scope Outputs: Mark, Space
- CW Keying Outputs: +100VDC @ 100 ma max, or -30VDC @ 20 ma max
- Terminal Interface: RS-232-C 25 pin DB25 connector (pins 1-8 and 20 software and hardware handshake)
- Terminal data rates: 300, 1200, 2400, 4800, 9600 baud

Front Panel Controls and Indicators

- Controls: Power, Radio selector, Threshold adjust
- Indicators: Data Carrier Detect LED, 10 Segment HF Bargraph Tuning Indicator, Mode Indicators (Baudot, ASCII, PTT, Morse, Check, FEC, ARQ, Mode L, STBY), Status Indicators (STBY, Phase, Idle, ERROR/Conv, Over,

Power Requirements

- +12 to +16 VDC @ 700ma, 2.1 mm connector, center pin positive
- Reverse polarity protection (Internal lampfuse)
- Optional AC-4 VAC Adapter available

Physical

- 11" x 8.25" x 2.5", 3 lbs.



Your Best Choice In Multimode Controllers

• EASY EFFICIENT OPERATION

Twenty-one clearly-marked, unambiguous, front-panel LEDs continually display your operating mode and system status at all times. AEA's exclusive "Opmode" screen command displays full details of your current Operation mode - without changing modes - an essential feature for efficient and simple multi-mode operation.

• COMPREHENSIVE USER'S MANUAL

AEA's 240 page User's Manual "Quick Start" section helps you bring the PK-232 up quickly and easily. Professional-quality documentation with complete schematic diagrams and detailed parts lists provides a wealth of information on all operation modes for both the newcomer and the experienced operator.

• LOWER ERROR RATES

Critical on-the-air benchmarking proves the PK-232's internal modems are the best available in any multi-mode system!

— Under average operating conditions, data error rates are generally 30% better than competitive systems.

— In worst-case conditions, the PK-232 outperforms systems priced 10 times higher!

• FLEXIBLE TERMINAL SPEEDS

All standard ASCII terminal speeds are easily selected by keyboard command: 75, 110, 150, 200, 300, 600, 1200, 2400, and 9600 BPS.

• HIGHER LINK DATA RATES AVAILABLE

True hardware HDLC and keyboard-controlled data link speeds permit system operation and external modem applications at 300, 1200, 2400, 4800, and 9600 BPS. No DIP switches or jumpers to change.

• BATTERY - BACKED RAM

No need for "perming", ALL operating parameter values, beacon and connect message texts are saved and continually updated in battery-backed RAM.

• ADJUSTABLE THRESHOLD CONTROL

Front-panel continually-variable 4-mode threshold control permits critical adjustment of effective modem sensitivity and "squelsches" output of "garbage" to your screen or printer.

• GREATER FLEXIBILITY

Two independent, selectable rear-panel radio connection ports provides interchangeable HF or VHF operation. Radio port selection is independent of data mode and speed.

• MODEM COMPATIBILITY

External modem connector, internal modem bypass and disconnect, hardware HDLC and digital data rates of up to 9600 BPS guarantee compatibility with inevitable radio modem advances.

• UNIQUE HOST MODE

Only AEA's PK-232 offers a true Host mode for programmers and software providers. New applications are now being created to provide users additional features and modes that are possible ONLY with the PK-232!

• EXTERNAL AFSK LEVEL ADJUSTMENT

PK-232's rear-panel control permits easy, rapid continually-variable adjustment of AFSK output levels for the wide range of radios used for CW, RTTY and data transmission. Adjust modulation and deviation without opening either your radio or your controller!

• INDEPENDANT MARK-HIGH AND SPACE-HIGH FSK AND OSCILLOSCOPE OUTPUTS

The PK-232's accessory port permits isolated connections to your HF radio's FSK input and your oscilloscope. Mark-high and Space-high FSK keying and scope outputs are available on a separate connector. Internal jumper changes are not required.

• SOLID - STATE KEYING CIRCUITS

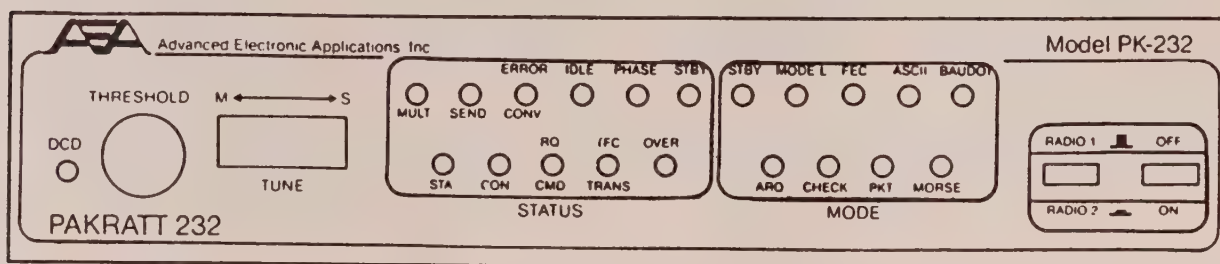
Solid-state keying circuits provide separate positive and negative CW key outputs. Dot-dash ratios remain constant at high keying speeds. Key bounce typically found in some reed relay circuits is eliminated.

• SOFTWARE RESET

Keyboard command permits system RAM reset to factory defaults without opening the unit or moving jumpers.



New IBM and Commodore PK-232 Terminal Programs



The most popular multi-mode data controller in amateur radio just got better, and we didn't change a thing. Two new programs written just for the AEA PK-232 simplify operation while taking full advantage of the features of the PK-232. PC Pakratt (for use with IBM and IBM clone computers) and Com Pakratt (for use with Commodore 64 and 128 computers) are special programs that offer split screen display, packet status displays, disk operation, and programmable memories. By using the Internal PK-232 Host mode (a kind of computer to computer shorthand) these menu driven programs make Morse, Baudot, ASCII, AMTOR, Packet, and FAX operation easy for those new to computers and more fun for the experienced operator.

SELECT MODE		DOS OPERATIONS	
F2 AMTOR	F3 Packet	T Set Time/date	C Copy file
F5 ASCII	F4 Baudot	D List Directory	R Rename file
F7 FAX	F6 Morse	P Print File	S Erase file
	F8 Dumb Terminal		
		MISCELLANEOUS	
B Browse	E Edit	L Load	*F9 Define softkey
Q Quit Program	V Save	X Exit program	
*F1 Rear window 1		*F2 User window	
<div>For help type F1</div>			

PC-Pakratt Main Menu Screen

PC Pakratt™ \$24⁹⁵

Friendly Help Menu - Defines commands and parameters on screen.

Easy Multi-channel Packet Operation - Each channel has a separate screen.

Up to 64K byte QSO Buffer - Stores incoming data for editing and retransmission.

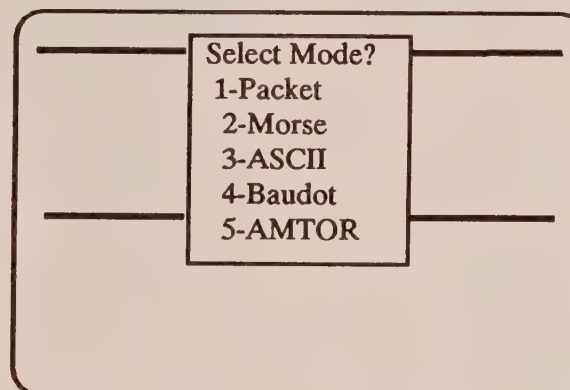
Built in Editor - Simple yet full featured text editor.

Color Monitor Compatibility - Select border, character, and background colors.

Ten Message/Command Buffers - Preprogram messages or commands for transmission with a single keystroke.

Disk Operation - Supports disk directory, file transfer, and storage of data received.

The PC Pakratt program requires 320K RAM minimum and DOS version 2.1 or higher. The program is available on a single 360K DS/DD disk and two disk drives are recommended.



Com Pakratt Main Menu Screen

Com Pakratt™ \$59⁹⁵

TTL to RS-232 Interface Included - Hardware interface needed for Commodore/PK-232 operation is included in the package.

Program on Cartridge - Plug-in cartridge eliminates need for disk or cassette drive.

Disk Operation - Supports disk directory, file transfers, and storage of data received.

Ten Message/Command Buffers - Six preset and four programmable memories for CQ, QBF, RY, etc.

Color Monitor Compatibility - Select background, text, highlight, and echo colors.

Com Pakratt supports printer output for Morse, Baudot, ASCII, AMTOR, and Packet to Commodore printers directly from the computer. FAX printing requires a parallel printer, or a serial to parallel printer interface for a serial printer, and is accomplished directly from the PK-232.

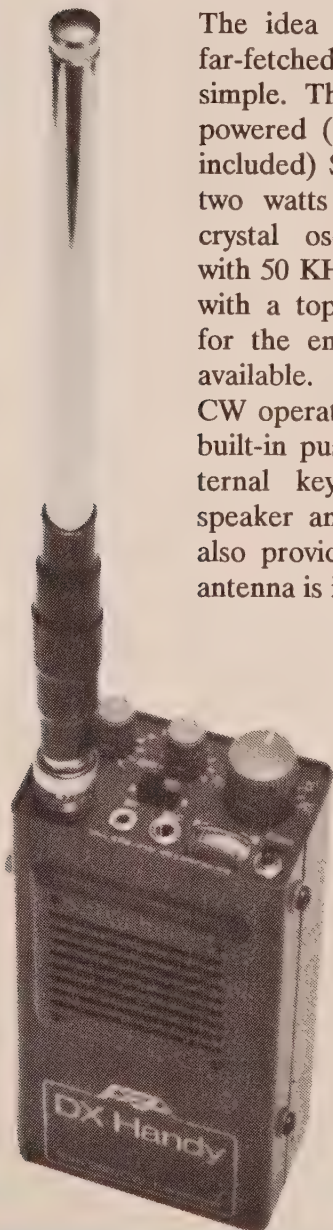
Prices and Specifications are subject to change without notice.

Two Unique Transceivers from AEA

AEA has two new transceivers like no other radios you have ever seen. Both of these transceivers offer special capabilities you just can't find in other radios. The new RFM-220 Radio Modem is actually more than a radio, it's a high speed packet modem and 220 transceiver combination. The DX Handy lets you carry the world around in your pocket by putting 10 meters in a handheld.



DX Handy™ \$299⁹⁵



The idea of handheld DX seems far-fetched, but it's actually very simple. The DX Handy is a battery powered (six penlight AA drycells included) SSB/CW transceiver with two watts output. Two variable crystal oscillators (VXOs), each with 50 KHz range, can be selected with a top panel switch. Crystals for the entire 10 meter band are available.

CW operation can be by either the built-in push button or with an external key or keyer. External speaker and microphone jacks are also provided, and the telescoping antenna is included.

The DX Handy is housed in an attractive gray metal case comparing in size to popular VHF FM handhelds.

Ten meters is coming back strong. With DX Handy all amateurs, novice to extra, can enjoy the thrill of working handheld DX.

RFM-220 Radio Modem™ \$649⁹⁵

The RFM-220 is the next step in packet radio technology. When attached to a packet TNC (like the AEA PK-232 or PK-87) the RFM-220 high speed modem can be used to transmit and receive data at up to 19.2 K baud. Achieving these faster baud rates required AEA to draw on years of packet experience and the ability to design a transceiver/modem combination as a single unit. The RFM-220 modem is compatible with all TNCs that are equipped with an external modem disconnect.

In addition, the RFM-220 is a fully synthesized transceiver that covers the entire amateur 220 MHz band with adjustable output power from 1 to 25 watts. The CPU controlled synthesizer offers 100 memory channels with memory and band scan. The RFM-220 has programmable TX/RX offset in 10 KHz steps from 10 KHz to 5 Mhz.

Designed for high speed data transmission, the RFM-220 is also a high fidelity voice transceiver with deviation settable from 4 to 10 Khz. Receiver sensitivity is .6 microvolt for 12 db SINAD and stability of 5 ppm. Superior sensitivity, selectivity, and dynamic range is achieved using a GaAs FET receiver front end and multiple helical resonators. The RFM-220 is powered by 13.5 VDC, 2 amps on receive - 8 amps on transmit. The RFM-220 size is 11-1/4" X 8-1/2" X 3-1/4".

The RFM-220 will be available soon for those who are ready for the next breakthrough in packet radio.

Prices and Specifications are subject to change without notice.

CRANK-UP TUBULAR TOWERS

MA SERIES

The premier MA-Series crank-up Tubular Towers are designed to be both safe and neighbor friendly. The slender design gives a clean, flagpole-like appearance, while allowing for antennas up to 10 sq. feet in 50 mph winds. Adequate safety margins are included. Uniform Building Code calculations are available for most models.

The MA-40 and 550 models come standard with flat base, two 1/2" x 10" anchor bolts, wall bracket and rotor plate mounted on top of top section. No guying is required when tower is properly bracketed to the eave of your roof.

MA-Series towers are completely self-supporting only when used with accessory MARB or MAB Series bases. The MARB Series rotor base allows the entire tower and antenna to be rotated from the base (rotor not included). This provides for easy rotor maintenance plus emergency hand rotation of the entire tower and antenna.

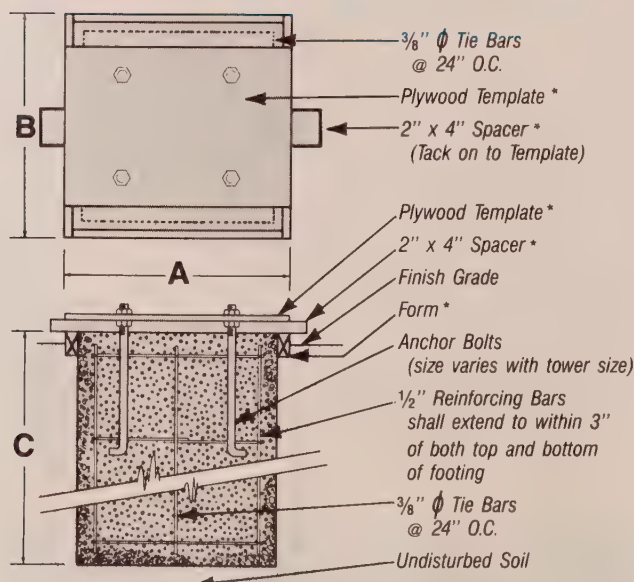
The MA-550MDP, 770MDP and 850MDP models include a heavy duty motor drive with positive pull down. The MDP models provide motorized raising and lowering of the tower. A remote control unit (RMC-1000) accessory is available that allows raising and lowering from your ham shack or other remote location.

All models without motor drives come standard with manual hand winches which have load actuated brakes for maximum safety. This feature prevents the winch from free-wheeling and causing injury to you or your installation in the event that you loose your grip during raising or lowering.

All steel used at US Tower conforms to ASTM specifications. All welding is done by certified factory personnel. All of our towers are factory tested by trained personnel before leaving the plant.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	SECTIONS	WEIGHT POUNDS	SEC. O.D. TOP	SEC. O.D. BOT.
MA-SERIES CRANK-UP MASTS Will handle 10 sq. ft. antenna at 50 MPH winds.						
MA-40	40'	21'6"	2	242	3"sq.	4 1/2"
MA-550	55'	22'1"	3	435	3"sq.	6"
MA-550MDP	55'	22'1"	3	620	3"sq.	6"
MA-770	71'	22'10"	4	645	3"sq.	8"
MA-770MDP	71'	22'10"	4	830	3"sq.	8"
MA-850MDP	85'	23'6"	5	1128	3"sq.	10"

MA-SERIES BASE INFORMATION



Model	A	B	C
MA-40 standard flat base	12"	12"	12"
MA-550 standard flat base	18"	18"	18"
MARB-40 Rotor Base	3'	3'	4'
MARB-550 Rotor Base	3'	3'	5'6"
MARB-770 Rotor Base	3'	3'	6'6"
MARB-850 Rotor Base	4'	4'	6'0"

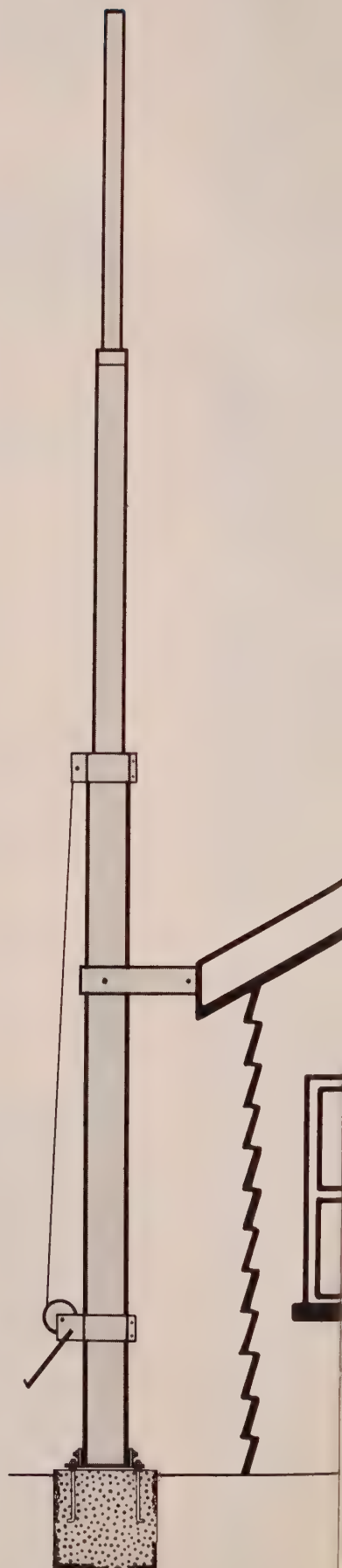
Base dimensions may vary with different soil compositions.

Allow ample time for concrete to cure.

MAB and MARB dimensions are the same.

Rebar is not provided by U.S. Tower. MA-40 & 550 use their standard base as a template. These standard bases use only 2 bolts and require no rebar. Wooden template included with MAB & MARB bases.

* To be removed



MA-SERIES ACCESSORIES

Model	Description	Weight
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MAF Raising Fixture

MAF-Series Raising Fixture accessory for easy raising and antenna servicing. For use with MARB and MAB bases.

MAF-40	Raising Fixture for MA-40	35#
MAF-550	Raising Fixture for MA-550	70#
MAF-770	Raising Fixture for MA-770	75#
MAF-850	Raising Fixture for MA-850	80#

MARB Freestanding Rotor Base

MARB-40	Freestanding ROTOR BASE for MA-40 with four 3/4" x 27" Anchor Bolts and thrust bearing	75#
MARB-550	Freestanding ROTOR BASE for MA-550 with four 1" x 36" Anchor Bolts and thrust bearing	140#
MARB-770	Freestanding ROTOR BASE for MA-770 with four 1" x 36" Anchor Bolts and thrust bearing	195#
MARB-850	Freestanding ROTOR BASE for MA-850 with four 1 1/8" x 36" Anchor Bolts and thrust bearing	280#

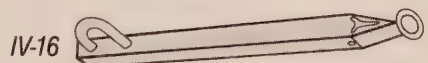
MAB Freestanding Type Base

MAB-40	Freestanding hinged base for MA-40 with four 3/4" x 27" Anchor Bolts	55#
MAB-550	Freestanding hinged base for MA-550 with four 1" x 36" Anchor Bolts	119#
MAB-770	Freestanding hinged base for MA-770 with four 1" x 36" Anchor Bolts	175#
MAB-850	Freestanding hinged base for MA-850 with four 1 1/8" x 36" Anchor Bolts	180#

Coax Standoff Arms



CX-2M	Coax Standoff arms for MA-40	4#
CX-3M	Coax Standoff arms for MA-550	6#
CX-4M	Coax Standoff arms for MA-770	8#
CX-5M	Coax Standoff arms for MA-850	10#



IV-16	The IV-16 attaches near the top of the tower of your choice to hold inverted vee type antennas. Please designate model tower to be used with. Cannot be used with MARB rotor base.	5#
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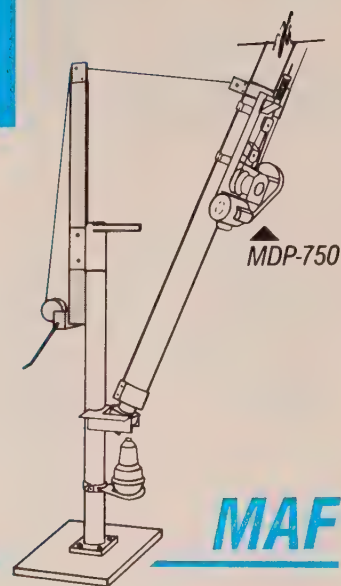
Motor Drives

Model	Description	Weight
MD-75	Heavy-duty motor drive with 1 HP motor and gear box.	155#
MDP-750	Heavy-duty motor drive with 1 HP motor, gear box and positive pull down.	185#

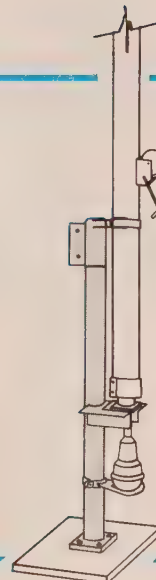
Remote Control Accessories

RMC-1000	Relay operated remote control for raising and lowering your tower from your ham shack or other remote location.	18#
MCL-100	Limit switch control package. The MCL-100 includes limit switches, limit switch brackets and control box at the base of the tower.	7#

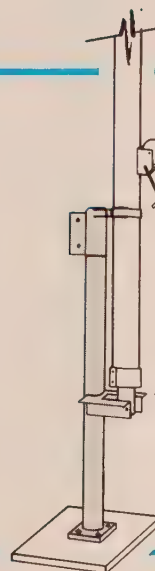
(See page 6 & 7 for complete descriptions.)



MAF



MARB



Hinging allows for easy installation on both MAB and MARB Bases.

MAB

US Tower's latest design includes the compact TMM Series towers giving Hams in restricted areas an alternative. The TMM Series has a minimum retracted height of 11'4" (may vary, depending on rotor used) and a maximum height of 47' including mast. At the towers' retracted height, visual impact is reduced to a minimum and antenna servicing is made easier. Typically the tower and antenna are below the roof line of your home when the tower is fully retracted.

The TMM Series towers are lightweight, freestanding crank-up towers that allow up to 18 sq. feet of antenna in 50 mph winds per EIA specifications. The TMM 433HD offers 24 sq. feet. These lightweight towers should provide many years of trouble free service. All of our towers have a hot dipped galvanized finish inside and out.

TX SERIES

US Tower's freestanding TX Series crank-up towers are as strong or stronger than most competitors' heavy-duty models. The TX Series towers have 21 foot sections with 4 foot overlap to provide extra height and strength. In addition the overlap helps prevent binding while lowering your tower in high wind and conditions.

The TX Series towers have a large enough top section (12½") to permit installation of most rotors inside the section for maximum strength while allowing the section to fully retract. Cross bracing at critical points on the tower ensures safety and additional strength. All US Towers crank-up towers have a heavy-duty hot dipped galvanized finish both inside and out, which should provide many years of trouble-free service.

The TX Series towers come complete with rotor plate and base hardware which includes, large steel anchor bolts and heavy-duty steel T-base that allows the tower to hinge on for easy installation. All T-

The TMM-433SS and 541SS have a 10" top section which will permit installation of most Alliance and other similar sized rotors inside the top section. Oversized rotors will prevent full retraction of your tower however they may be used if full retraction is not required. This restriction is dependent on location of rotor plate. All TMM Series towers include anchor bolts, rotor plate, hinged T-base, load actuated winch, and eight feet of 2" OD x .120" antenna mast.

The TMM-433SS will accept the MD-75 motor drive accessory. The TMM-433HD and 541SS will accept the MD-75 and MDP-750 accessory motor drives. The MDP-750 motor drive accessory is compatible with both of our MCL-100 and RMC-1000 limit switch packages (see accessories).

bases will accept the TRX Series raising fixtures for easy one man installation. All TX Series towers include Fulton hand winches (except MDP and MDLP models) which feature automatic load actuated brakes for maximum safety. Masts and motor drives are available as accessories (see accessory page).

The TX-472MDP comes complete with MDP-750 motor drive and limit switch brackets. The TX-489MDPL includes the MDPL-1000 motor drive and limit switch brackets. Limit switch assemblies and remote raising devices are available (MCL-100) (RMC-1000) for all MDP-750 and MDPL-1000 motor drive units (see accessory page for description).

U.S. Tower's TX Series requires no guying. The wind loading is calculated at 18 sq. feet of antenna in 50 mph winds per EIA specifications. To assist you in applying for necessary construction permits, Uniform Building Code calculations are available for most models.

HDX SERIES

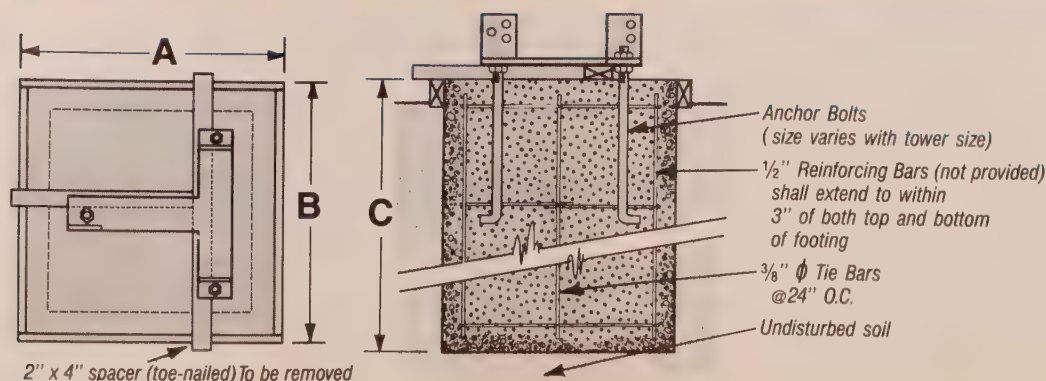
US Tower's HDX Series heavy-duty crank-up towers have up to 2½ times more windloading capacity than others commonly advertised. This superior strength allows for large stacked arrays, while using our commercial type bases and anchor bolts that can be easily installed and vertically adjusted. All HDX Series T-bases are designed to use our TRX Series raising fixtures which make installations and antenna servicing a one man job.

Modified top sections for the HDR-300 rotors are available at a small additional cost. US Tower carries as accessories many different sizes and strengths of masts which can be used with the HDX Series towers. The HDX-572MDPL and 589MDPL motorized towers provide dual level wind, positive pull down and heavy duty gear box features. The HDX-572MDPL comes only with limit switch brackets. The

HDX-589MDPL comes complete with the MCL-100, limit switch package. All towers using MDP-750 and MDPL-1000 motor drives may use the RMC-1000 accessory limit switch package which allows the raising and lowering of your tower from the comfort of your ham shack or any remote location. MCL-100 is also available (see accessory page).

All HDX Series towers come complete with rotor plate, anchor bolts and heavy-duty T-base (doubles as template). US Tower's special T-base design allows the tower to hinge for easy installation. US Tower's crank towers require no guying. The HDX Series towers are rated at 30 sq. feet of antenna at 50 mph winds per EIA specifications. To assist you in getting a construction permit, Uniform Building Code calculations are available for most towers.

CRANK-UP TOWER BASE INFORMATION

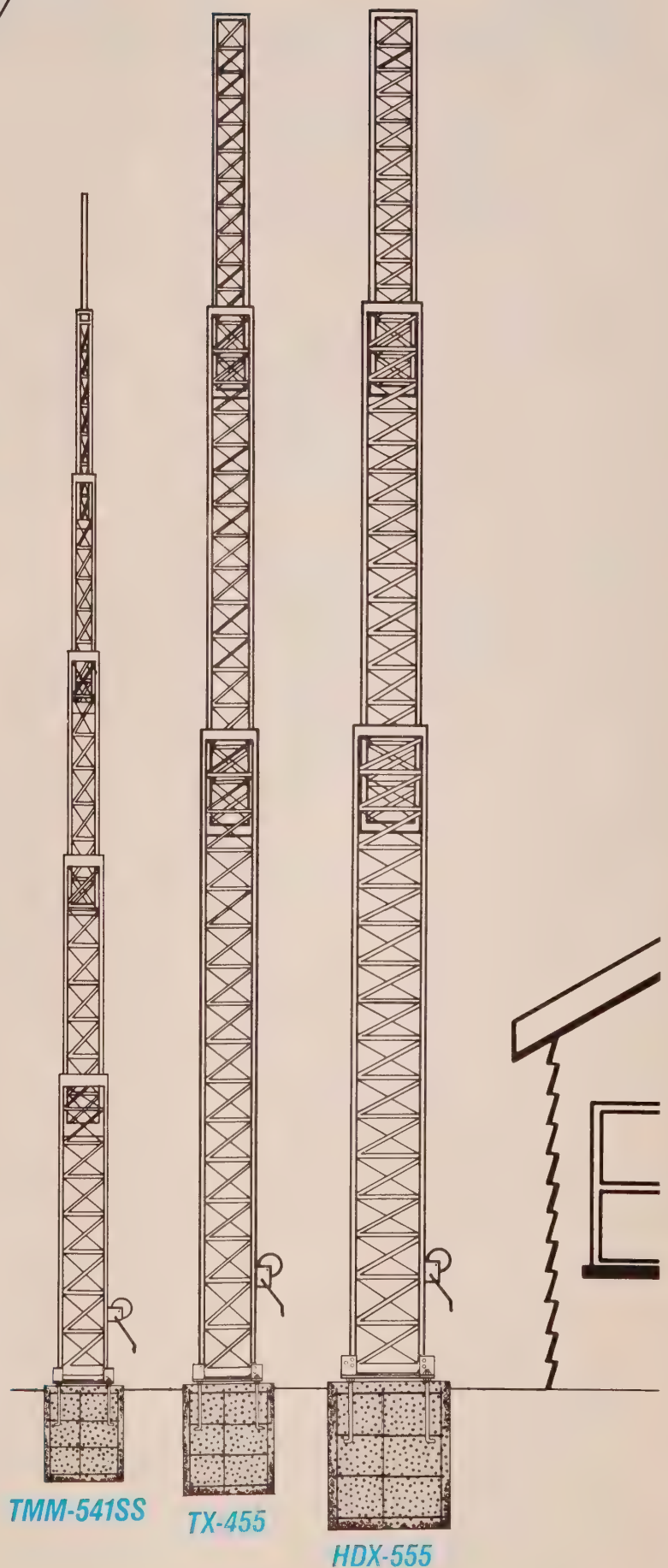
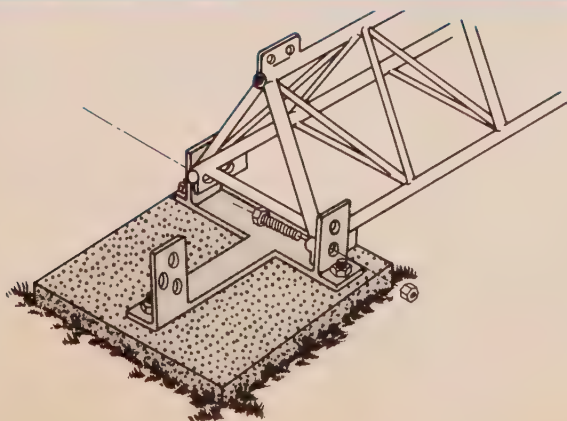


Model	A	B	C
TMM-433SS	3'	3'	4'
TMM-541SS	3'	3'	4'6"
TMM-433HD	3'	3'	5'
TX-438	3'	3'	5'
TX-455	3'	3'	6'
TX-472	4'	4'	6'
TX-489	4'	4'	7'
HDX-538	3'	3'	6'
HDX-555	4'	4'	6'
HDX-572	4'	4'	7'
HDX-589	5'	5'	7'6"

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	SECTIONS	WEIGHT ROUNDS	SEC. O.D. TOP	SEC. O.D. BOT.
COMPACT TMM-SERIES CRANK-UP TOWERS						
Will handle 18 sq. ft. antennas at 50 mph (433HD will handle 24 sq.)						
TMM-433SS	33'w/o Mast	11'4"	4	315	10"	18"
TMM-433HD	33'w/o Mast	11'4"	4	400	12 1/2"	20-7/8"
TMM-541SS	41'w/o Mast	12'	5	430	10"	20-7/8"

TX-SERIES FREE-STANDING CRANK-UP TOWERS						
Will handle 18 sq. ft. antennas at 50 mph winds						
TX-438	38'	21'6"	2	355	12 1/2"	15"
TX-455	55'	21'	3	670	12 1/2"	18"
TX-472	72'	22'8"	4	1040	12 1/2"	21 5/8"
TX-472MDP	72'	22'8"	4	1210	12 1/2"	21 5/8"
TX-489	89'	23'4"	5	1590	12 1/2"	25 5/8"
TX-489MDPL	89'	23'4"	5	1800	12 1/2"	25 5/8"

HDX-SERIES HEAVY-DUTY CRANK-UP TOWERS						
Will handle 30 sq. ft. antennas at 50 mph winds						
HDX-538	38'	21'6"	2	600	15"	18"
HDX-555	55'	22'	3	870	15"	21 5/8"
HDX-572	72'	22'8"	4	1420	15"	25 5/8"
HDX-572MDPL	72'	22'8"	4	1600	15"	25 5/8"
HDX-589MDPL	89'	23'8"	5	2440	15"	30 5/8"



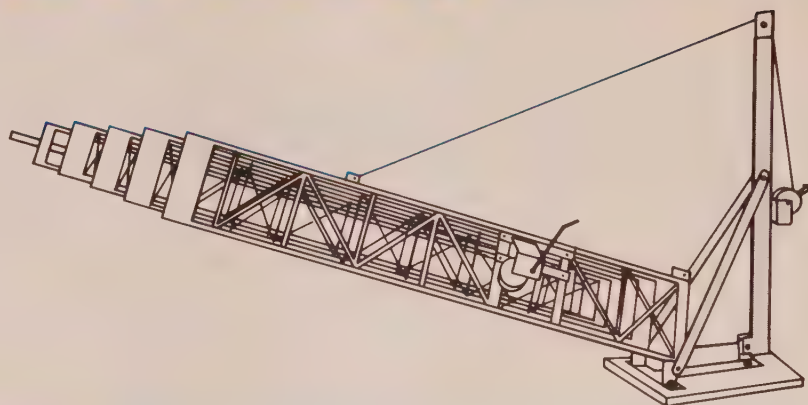
The factory reserves the right to make changes or modifications without notice.

Model	Description	Weight
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Raising Fixture

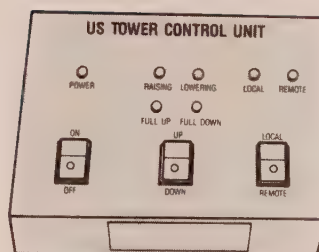
TRX-80	Standard model tower raising fixture for TMM, TX and HDX Series towers.	120#
TRX-80HD	Heavy-duty model tower raising fixture for TX and HDX Series towers.	155#

Both TRX-80 and 80HD are designed to be easily mounted on your towers' hinged T-base for quick and safe one man installation or antenna servicing.

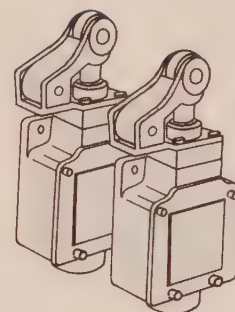


Remote Control

RMC-1000	Relay operated remote control for raising and lowering your tower from your ham shack or other remote location. The RMC-1000 includes, limit switches, limit switch brackets and two relay boxes. The RMC-1000 can only be used with MDP-750 and MDPL-1000 motor drives.	18#
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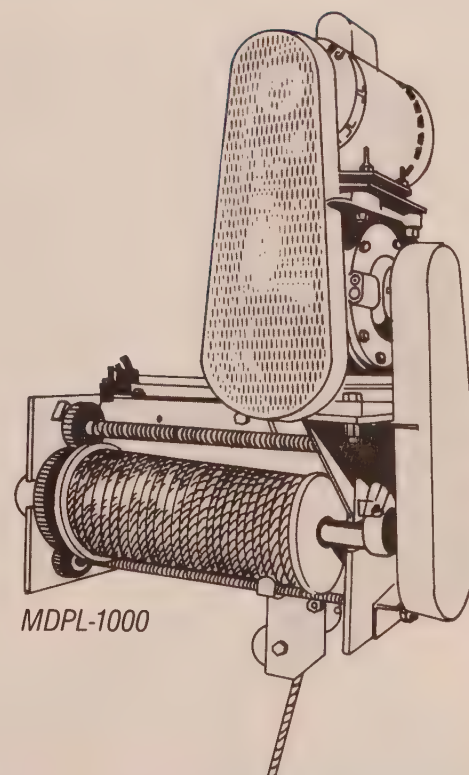


MCL-100	Limit switch control package. The MCL-100 includes limit switches, limit switch brackets and control box at the base of the tower. The MCL-100 allows you to raise and lower your tower with automatic shut down when maximum or minimum height is reached. The MCL-100 can only be used with the MDP-750 and MDPL-1000 motor drives.	7#
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Motor Drives

MD-75	Heavy-duty motor drive with 1 HP motor and gear box.	155#
MDP-750	Heavy-duty motor drive with 1 HP motor, gear box and positive pull down. US Towers' positive pull down feature is designed to mechanically apply the same strength in the retraction process as is used in the raising of your tower. Positive pull down is very important in lowering your tower in high wind conditions. The MDP-750 differs from the standard motor drive (MD-75) unit which releases tension on the cables allowing the weight of the upper sections to be the only lowering force. (See page 3 for illustration.)	185#
MDPL-1000	Heavy-duty motor drive with 1 HP motor, heavy-duty gear box, positive pull down and dual level wind features. Dual level wind is an exclusive US Tower design allowing the cable to wind on the motor drum in a uniform manner. This prevents the cable from overlapping on the drum. For description of positive pull down see MDP-750.	220#



MDPL-1000

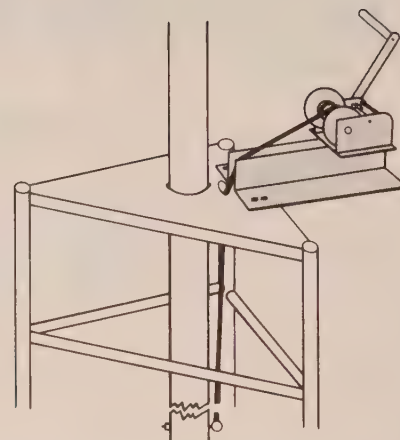
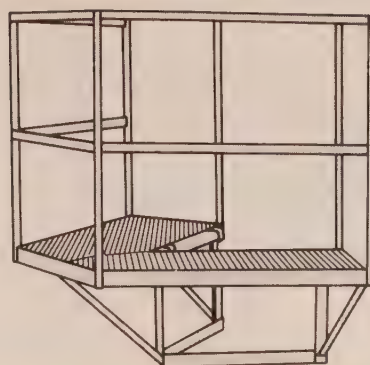
Call factory for replacement 1 HP motors, hand winches, limit switches, $\frac{3}{16}$ " x 7" x 19" and $\frac{1}{4}$ " x 7" x 19" aircraft cable, anchor bolts, belts, pulleys,

sprockets and modified bases. Tower dolly rentals are available. The factory reserves the right to make changes or modifications without notice.

Model	Description	Weight
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Service Platform

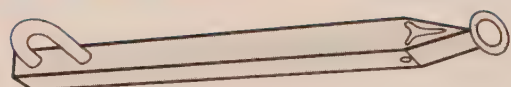
HDP	Large service platform with safety railings to provide a safe and comfortable surface while installing or maintaining your antenna and rotor.	125#
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Mast Raising Fixture

MRF	Mast raising fixture with winch and cable that attaches to the top of your tower to assist in raising and lowering your antenna mast.	20#
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Coaxial Arm Sets

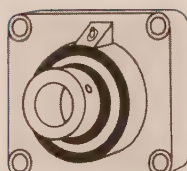


IV-16	The IV-16 attaches near the top of the tower of your choice to hold inverted vee type antennas. Please designate model tower to be used with. Cannot be used with MARB rotor base.	5#
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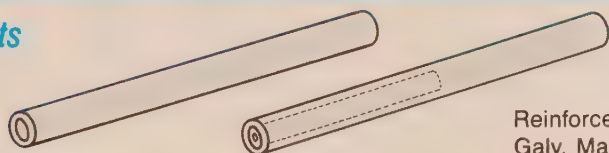
CX-2	Set of 2 Coax Standoff Arms	6#
CX-3	Set of 3 Coax Standoff Arms	8#
CX-4	Set of 4 Coax Standoff Arms	10#
CX-5	Set of 5 Coax Standoff Arms	13#

Thrust Bearing



TB-2US	Thrust Bearing for 2" Mast, 2 Flange Holes	10#
TB-4US	Thrust Bearing for 2" Mast, 4 Flange Holes	10#

Masts



Reinforced Galv. Mast

US Tower offers three different types of masts. The M-5, 10, 15 and 20 masts have .120" wall thickness. The M-15R and 20R have steel pipe inserts in the lower half of the mast which provides extra strength where most needed without adding unnecessary weight in the top portion. The M-15R and 20R have a wall thickness of .250". The M-24R mast has two steel pipe inserts to give a wall thickness of .375".

M-5	2" O.D. x 5 ft. Galv. Mast	14#
M-10	2" O.D. x 10 ft. Galv. Mast	25#
M-15	2" O.D. x 15 ft. Galv. Mast	40#
M-15R	2" O.D. X 15 ft. Reinforced Galv. Mast	50#
M-20	2" O.D. x 20 ft. Galv. Mast	55#
M-20R	2" O.D. x 20 ft. Reinforced Galv. Mast	70#
M-24R	2" O.D. x 24 ft. Triple Reinforced Galv. Mast	95#

3/4" x 27"	Anchor Bolt with 2 nuts	5#
1" x 36"	Anchor Bolt with 2 nuts	10#
1 1/8" x 36"	Anchor Bolt with 2 nuts	12#

RP-3	Rotor Plate for 10" Section	5#
RP-4	Rotor Plate for 12 1/2" Section	7#
RP-5	Rotor Plate for 15" Section	9#

S - Standard
O - Optional

	TX-438	TX-455	TX-472	TX-472MDP	TX-489	TX-489MDPL	HDX-538	HDX-555	HDX-572	HDX-572MDPL	HDX-589MDPL	TMM-433SS	TMM-433HD	TMM-541SS
MASTS														
M-5	O	O	O	O	O		O	O	O	O		O	O	O
M-8												S	S	S
M-10	O	O	O	O	O		O	O	O	O		O	O	O
M-15	O	O	O	O	O		O	O	O	O		O	O	O
M-20	O	O	O	O	O		O	O	O	O				
M-15R	O	O	O	O	O		O	O	O	O				
M-20R	O	O	O	O	O		O	O	O	O				
M-24R	O	O	O	O	O		O	O	O	O				
RAISING FIXTURE														
TRX-80	O	O					O	O				O	O	O
TRX-80HD			O	O	O	O			O	O	O			
SERVICE PLATFORM														
HDP			O	O	O	O			O	O	O			
COAX STANDOFF ARMS														
CX-2	O						O							
CX-3		O						O						
CX-4			O	O					O	O		O	O	
CX-5					O	O				O				O
MOTOR DRIVES														
MD-75	O	O					O	O				O	O	O
MDP-750		O	O	S			O					O	O	
MDPL-1000			O	O	S			O	S	S				
REMOTE CONTROL														
RMC-1000		O	O	O	O	O		O	O	O	O	O	O	
MCL-100		O	O	O	O	O		O	O	O	S		O	O
MISCELLANEOUS														
3/4" x 27" bolts	S											S		
1" x 36" bolts		S		S	S		S	S	S			S	S	
1 1/8" x 36" bolts			S	S			S		S					
RP-3												S	S	
RP-4	S	S	S	S	S	S						S		
RP-5							S	S	S	S	S			
MRF	O	O	O	O	O	O		O	O	O	O		O	
TB-2US	O	O	O	O	O	O		O	O	O	O		O	
TB-4US								O	O	O	O			
IV-16	O	O	O	O	O	O		O	O	O	O	O	O	O

HUSTLER



FIXED STATION Multi-band Vertical Antennas

With space restricted or space unlimited, HUSTLER Verticals are the Choice of amateurs for top signal reports, consistent contacts and dependability.

Experience the pleasure of instant multi-band operation without changing coax or turning switches, plus the assurance of reliability with an antenna mechanically superior to any comparable product.

Basic Features:

- Broadbanded - Low VSWR at band edges.
- Power capability - Full Legal Limit on SSB or CW
- Solid one-inch fiberglass trap forms for optimum electrical and mechanical stability.
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.

Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24' / 16.5 lbs.
Mounting vertical support up to 1 3/4" O.D.
Wind Load 29 lbs. @ 70 MPH
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges
on 10-40 meters. (100 kHz on 75/80 meters).

Model 5-BTV

Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25.1' / 17 lbs.
Mounting vertical support up to 1 3/4" O.D.
Wind Load 29 lbs. @ 70 MPH
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges
on 10-40 meters. (100 kHz on 75/80 meters)

Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21' 5" / 15 lbs.
Mounting vertical support up to 1 3/4" O.D.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

Model 5-BTV

RMX 10 Meter Mobile Antenna



- V.S.W.R. - 250 to 400 KHz under 2:1.
- 1000 watt capacity.
- Only 46 inches tall.
- Can be trunk lip mounted using model HLM or TLM Hustler mount.
- Stainless steel impact spring built into top of coil.

Available in Black or White

Mobile Antennas

FOR 6 - 10 - 15 - 20 - 40 - 75 - 80 METERS

Only Hustler gives you choice of mounting location and selection of mast that folds at roof line for quick and easy interchange of band resonators or entering a garage. When operating, mast and resonator assembly is erected and held vertical with shakeproof sleeve clutch. 54" mast also serves as 1/4 wavelength 6 meter antenna. Finest construction with 1/2" OD hard drawn brass and heat treated aluminum. Stainless steel base has 3/8"-24 threads to fit all standard mobile mounts.

Convenience of fold-over mast for rapid band change or easy garaging, exceptional reports on each band and a time proven concept in mobile communications, a concept verified by the overwhelming majority of amateurs is yours only with Hustler!

HUSTLER RESONATORS

All resonators are precision wound with optimized design for each band and weather sealed. Assembly includes adjustable 17-7 PH stainless steel tip rod, convenience band edge marker and positive locknut and clutch. Hustler resonators are available for medium or high power.

Standard Hustler
Resonators—Power
Rating: 400 watts SSB

Model	Band
RM-10	10 meters
RM-11	Citizens Band
RM-15	15 meters
RM-20	20 meters
RM-40	40 meters
RM-75	75 meters
RM-80	80 meters

Super Hustler Resonators—
Power Rating: Legal Limit SSB
Supers have widest band-width

Model	Band
RM-10-S	10 meters
RM-11-S	Citizens Band
RM-15-S	15 meters
RM-20-S	20 meters
RM-40-S	40 meters
RM-75-S	75 meters
RM-80-S	80 meters

MO-1 Mobile mast. 54" high for Deck or Fender mounting - folds over 15" above base.

MO-2 Mobile mast. 54" high, for Bumper mounting - folds over 27" above base.

MO-3 Mobile mast. 54" high, solid - does not fold over.

If you've tried the rest,
now try . . .

HUSTLER antennas!



TWO-METER Fixed Station Antennas



MASTER GAINER II

Vertical Antenna model G7-144

7 dB GAIN
—compared to 1/2 wave dipole

ELECTRICAL

Radiator: Colinear shunt-fed. Triple 5/8-wave elements in series, separated by 2 phasing coils to produce maximum gain and extremely low angle of radiation.

7 dB Gain over 1/2-wave dipole

Omnidirectional radiation pattern

Extremely low angle of radiation

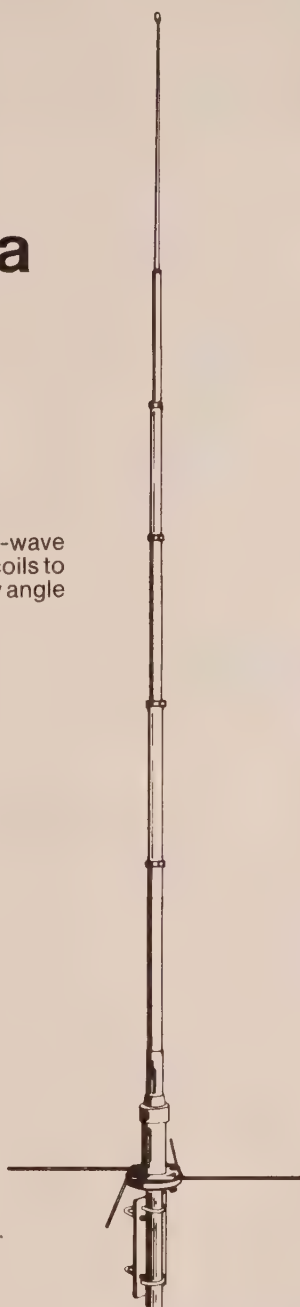
Tuning range: 144-148 MHz

Bandwidth for 2:1 or better VSWR: 6 MHz

Power - 1 KW FM

50 ohm feed impedance

Shunt fed with DC grounding



MECHANICAL

High strength fiberglass and aluminum

Completely self-supporting

Length: 184"

Radials: (4) 1/4-wave x 3/8" O.D. rod

Connector: N-type

Wind load: 26 lbs @ 100 mph.

Mounting: Vertical support up to 1 3/4" O.D.

Weight: 10 lbs

MASTER GAINER

Vertical Antennas for 2m & 440 MHz

6 dB GAIN
—compared to 1/2 wave dipole

G6-144B (2m) • G6-440 (440 MHz)

ELECTRICAL

Radiator: 5/8-wave lower section, 1/4-wave phasing, and 5/8-wave upper section

6 dB Gain over 1/2-wave dipole

Omnidirectional radiation pattern

Extremely low angle of radiation

Tuning range: G6-144-B - 140-150 MHz;

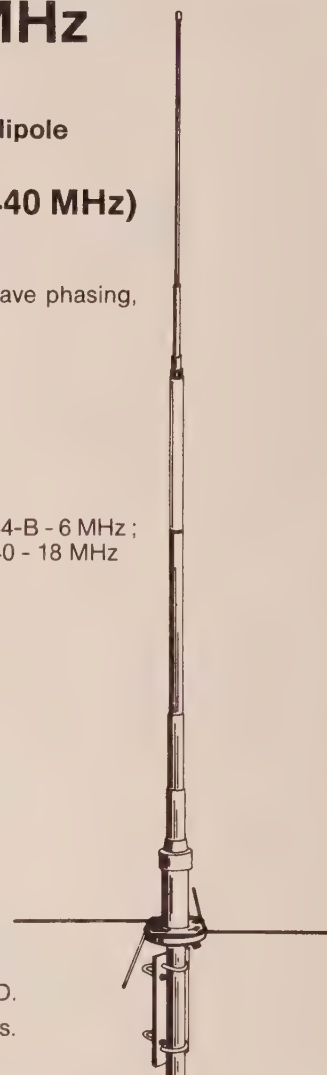
G6-440 - 430-450 MHz

Bandwidth for 2:1 or better VSWR: G6-144-B - 6 MHz ;
G6-440 - 18 MHz

Power - 1 KW FM

50 ohm feed impedance

Shunt fed with DC grounding



MECHANICAL

High strength fiberglass and aluminum

Completely self-supporting

Length: G6-144B - 117"; G6-440 - 88"

Radials: (4) 1/4-wave x 3/8" O.D. rod

Connector: SO-239

Wind load: G6-144-B 26 lbs @ 100 mph.

Mounting: Vertical support up to 1 3/4" O.D.

Weight: G6-144-B - 6.8 lbs; G6-440 - 5 lbs.



CLOSEOUT
Regular \$79⁹⁵
Now \$49⁹⁵

6-MB3 3 Element Six Meter Yagi

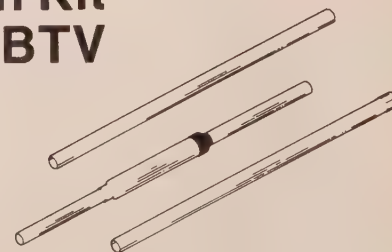
- Rugged, all seamless aluminum and corrosion-resistant hardware
- 6dB Gain, 28dB F/B ratio
- 50 ohm Gamma match feed
- 1.2:1 SWR at resonance
- 2 MHz bandwidth under 2:1 SWR
- Longest element: 10'
- 11' 6" turning radius
- Weight: 7 lbs

10-MB4 4 Element Ten Meter Yagi

- Solid all seamless aluminum and corrosion-resistant hardware
- 9.4dB gain, 28.0 dB F/B ratio
- 28.0 dB F/B ratio
- Excellent directivity
- 50 ohm Gamma match feed
- 1.2:1 SWR at resonance
- Length: 16' 6"
- Weight: 11 lbs

30 Meter add-On Kit for 4BTV and 5-BTV

- Model 30-MTK
- Full 30 Meter band coverage
- Will not affect normal operation
- Easy installation
- All hardware included
- Weight: 5 lbs.



Technical Services

We at Hustler are proud of our products and service. Should you experience a problem with one of our products, or if you have technical questions, please call us at (800) 327-9076.



220 MHz Vertical Antenna model G7-220

The 7 dB omnidirectional gain (compared to a 1/2-wave dipole) of this rugged antenna means exceptional 220 MHz (1 1/4 meter) amateur performance, receiving and transmitting. A unique new design keeps the signal pattern at the lowest possible angle for maximum radiation efficiency.

Famous Hustler reliability is built in. Each component is precisely made using top-quality corrosion resistant materials. The antenna is quick to assemble and easy to install. It will give years of excellent all-weather performance and trouble-free service. The radiating elements are dc grounded for lightning protection.

7 dB GAIN
—compared to
1/2 wave dipole

Specifications

Length: 122" long
Power Capability: one kilowatt FM
SWR at Resonance: 1.2:1 at antenna
Bandwidth: 5 MHz for 1.5:1 SWR
Impedance: 50 ohms
Radials: four, 14" x 3/8" O.D.
Connector: type N
Wind Load: 26 lb at 100 mph
Mounting: vertical support up to 1 1/4" O.D.
Shipping Weight: 7.0 lb

HUSTLER INC

HUSTLER



**VHF
UHF**

Mobile Antennas Optimized for Amateur Band Performance!

5.2dB, 3.4dB, or Unity Gain for Superb Mobile Operation

Hustler's time-proven consistent quality and know-how assures you of the finest all-weather mobile antenna system performance everytime without failure. Each Hustler mobile antenna is designed for optimum SWR, and provides maximum shielding from noise.

***All Gain figures are compared to a 1/4-wave ground plane antenna.**

440 MHz

Model BBLT-440
5.2dB* 1/2 over 1/4-wave Colinear Trunk-Lip Mount Antenna

- Tunable, 438-450 MHz
- Super Gain: 5.2dB*
- 10 MHz bandwidth, 2:1 SWR
- Power rating: 200 Watts FM
- Feed Impedance: 50 ohms
- Furnished with 17' of Low loss coax, and connector
- Weight: 2.76 lbs.

220 MHz

Model CGT-220
5.2dB gain* 1/2 over 1/4-wave Colinear Trunk-Lip Mount Antenna

- Super Gain: 5.2dB*
- 1.1:1 SWR (typical) at resonance
- 4 MHz bandwidth, 1.5:1 or better SWR
- Power rating: 200 Watts FM
- Height: 4' 9" including mt.
- Spin knob to remove antenna
- Furnished with 17' of Low loss coax and connector

This outstanding 1 1/4 meter antenna delivers 5.2dB gain* both transmitting and receiving. It incorporates a design that keeps radiation at the lowest angle for maximum gain. Elements are tapered stainless steel. The Trunk-Lip Mount has a 180° swivel ball for vertical antenna positioning; includes 17' coax and connector. 1.16 lbs.

Model CG-220

Has identical electrical characteristics as **CGT-220** but with 3/8" x 24 threaded base for use with standard ball mounts or other 3/8" x 24 Hustler mounts.

"Buck-Bu\$ter!"

Model SF-220

Low Cost 3.4dB gain* 220 MHz 1/2-wave for 3/8" x 24 thread mounts

- 1.2:1 SWR at resonance
- Power rating: 100 Watts FM
- Tapered stainless steel
- 3/8" x 24 thread mount
- Length: 2' 7"
- Wt: 0.87 lbs

2 meters

Model BBLT-144A

3.4dB Gain* Trunk-Lip Mt. Ant.

- Adjustable 143-149 MHz
- 3.4 dB* gain
- SWR: 1.1:1 at resonance
- Power rating: 200 Watts FM
- Shunt-fed - reduced static
- Length: 4' 4" incl. mt.
- Spring and 180° swivel ball for vertical positioning
- 17' coax and connector
- No drilling required
- Weight: 2.76 lbs.

This trunk-lip mount antenna outsells all other versions.

Shunt-fed matching provides maximum signal radiation and low SWR. Impact spring and tapered stainless steel radiator reduce flutter. Mount installs easily on the side or edge of trunk lid without drilling. 180° swivel ball for vertical position. Antenna is removable from mt.

Model BBL-144A

3.4dB* Gain Roof Mount Ant. Same as **BBLT-144A** but mounts in 3/4" hole on a flat surface. 17' coax with connectors. 2.6 lbs.

Model CGT-144

5.2dB* Gain 1/2 over 1/4-wave Colinear Trunk-Lip Mt. Antenna.

- Super Gain: 5.2 dB*
- 6 MHz bandwidth, 1.15:1 SWR
- Power rating: 200 Watts FM
- Length: 7' 1" incl. mt.
- Spring and 180° swivel ball for vertical positioning
- 17' coax and connector
- No drilling required
- Wt: 3.34 lbs.

Phased 1/4 and 3/8-wave radiating sections for high gain and low angle radiation. Impact spring and tapered stainless steel radiator for reduced flutter. Mount installs easily on trunk lid without drilling. 180° swivel ball for vertical positioning. Antenna is removable from mount.

Model CG-144

Same as **CGT-144** but has 3/8" x 24 threaded base for use with standard ball mounts or other 3/8" x 24 Hustler mounts.

Model SGM-2

1/2-wave Magnet Mount Antenna

- 3.4dB* gain
- 1.2:1 SWR at resonance
- Power rating: 100 Watts FM
- Magnetic base with swivel ball
- Tapered stainless radiator
- 180° swivel ball mount for vertical positioning
- Length: 4' 2"
- 12' coax with connector
- Wt: 2.5 lbs

"Buck-Bu\$ter!"

Model SF-2

Low Cost 3.4dB gain* 2 meter 1/2-wave for 3/8" x 24 thread mt.

- 3.4dB* gain
- 1.2:1 SWR at resonance
- Power rating: 100 Watts FM
- Tapered stainless radiator
- 3/8" x 24 thread mount
- Length: 4'
- Wt: 0.5 lbs

THF

UHT-1

MKR-2

140-500 MHz

Model THF

VHF/UHF Trunk-Lip Mt. Antenna

Trimmable 17-7 PH stainless steel radiator is cut to 1/4 wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Easy to install trunk-lip mount attaches to rear or side of trunk lid without drilling. Supplied ready for operation with 17' of coax with connectors installed. 1.5 lbs.

Model UGM

VHF/UHF Magnetic Mt. Antenna

Extend range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to 1/4 wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar-protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 7' of mini-coax with BNC connector and trim chart. 1 lb.

Model UHT-1

VHF/UHF Roof/Deck Mt. Ant.

Low profile mount designed for easy installation in a 3/4" hole on any flat surface or on roof without pulling headliner. Unity gain, 1/4-wave performance. Trimmable 17-7 PH stainless steel radiator permits operation on any frequency from 140 to 500 MHz. Trim chart, 15' of coax & connector included. 1.2 lbs.

Model MAG

Magnet Mount for 3/8" x 24 models

MAG-1 Accepts flexible antennas up to 55" long with 3/8" x 24 threaded base. 12' coax with connector Wt. 2 lbs.

MAG-2 For use with BBL-144A and BBLT-144A antennas. 12' coax with connector. 2 lbs.

MAG-3 For use with BBLT-440 antenna. 12' coax w/connector.

Model MKR-2 Radial Kit

Contains three decoupling radials and mount to convert series-fed mobile VHF antennas to fixed operation. Performance is comparable to much regular base antennas. Suitable for permanent installations or portable use. Heavy-duty zinc plated mast bracket & hardware. Accepts antennas with standard 3/8" x 24 threaded base. 2 lbs.



Mobile Antenna Hardware

Standard Commercial—Stainless Steel

Model SSM-1

Standard commercial ball mount and stainless steel spring. Shipping Weight: 2.53 lb.



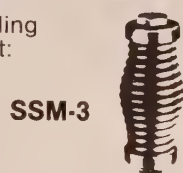
Model SSM-2

Ball mount only. Shipping Weight: 1.3 lb.



Model SSM-3

Stainless steel spring including $\frac{3}{8}$ "-24 coupling stud. Shipping Weight: 1.21 lb.



Professional Series—Heavy Chrome

Model C-32

Hustler professional ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware, and hex wrench. Shipping Weight: 0.84 lb.

Model C-29

Stainless steel, corrosion resistant and electropolished spring complete with $\frac{3}{8}$ "-24 coupling stud. Shipping Weight: 1.2 lb.

Model C-30

Chrome-plated steel spring complete with $\frac{3}{8}$ "-24 coupling stud. Shipping Weight: 1.2 lb.

DELUXE MOBILE MOUNTS

For antennas up to 60" in length with $\frac{3}{8}$ " x 24 threads

Model HOT "Hustloff" Trunk-Lip Mount.

Mounts without holes or drilling. For security just turn knob to remove antenna and mount from trunk-lid. Not removeable when trunk closed. 180° swivel mount with $\frac{3}{8}$ " x 24 threads. 17' coax with connectors attached. 1.9 lbs.

Model HLM Deluxe Trunk-Lip Mount.

Designed specifically for hatch and slanted-back vehicles. No holes or drilling. 180° adjustable swivel with $\frac{3}{8}$ " x 24 threads, 17' coax with connectors attached. 1.7 lbs.

Model TLM Trunk-Lip Mount.

Installs on side or edge of trunk-lid without holes or drilling. Vertical mount with $\frac{3}{8}$ " x 24 threads, 17' coax with connectors attached. 1.86 lbs.

Model GCM-1 Rain Gutter Mount.

Deluxe heavy-gauge triple chrome plated brass. Installs without holes or drilling on all sizes and any angle rain gutter. 180° adjustable swivel with $\frac{3}{8}$ " x 24 threads. 0.8 lbs.

Model MM-1 Cowl Mount.

Low profile, installs on any flat surface, or angle, in a 1" hole. 180° split-ball swivel for optimum vertical positioning, $\frac{3}{8}$ " x 24 threads. 1.9 lbs.

Model MM-3 Cowl Mount.

Installs on any flat surface, or angle, in a 1" hole. 180° swivel for optimum vertical position, $\frac{3}{8}$ " x 24 threads, 5' coax with connectors attached. 1.3 lbs.

Model TGM-1 Trunk Groove Mount.

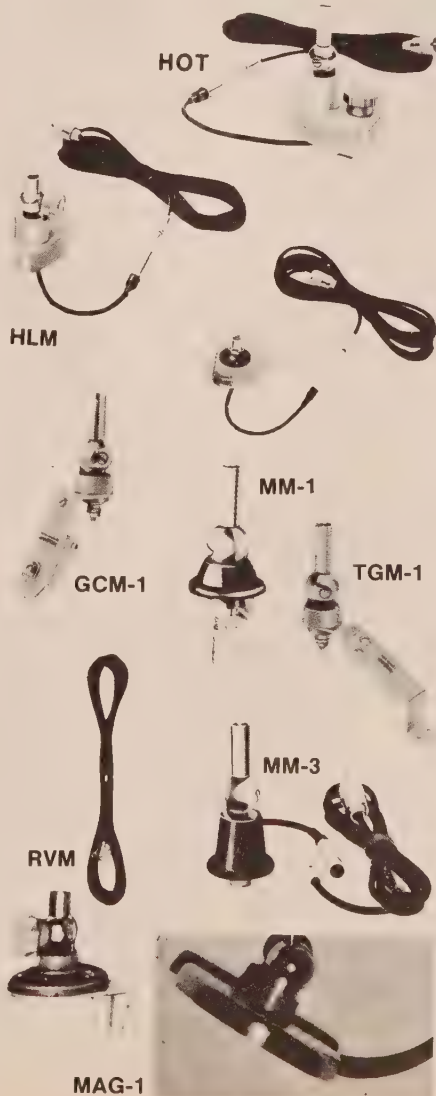
Installs in a hidden area of trunk groove. 180° adjustable swivel, $\frac{3}{8}$ " x 24 threads, 0.74 lbs.

Model RVM Recreational Vehicle Mount.

Heavy duty design for vertical side panel or roof mounting. Knob for rapid removal or lay-down. Optimum vertical positioning with 180° swivel, $\frac{3}{8}$ " x 24 threads, 17' coax, including connectors, grommet, and hardware. 1.9 lbs.

Model MAG-1 Magnet Mount.

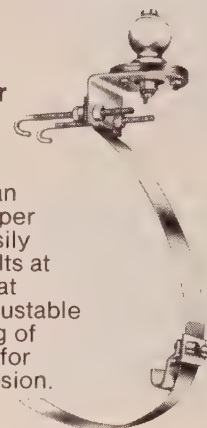
Strong ceramic magnet holds tight to ferrous surfaces. Mylar protected bottom, 180° adjustable swivel, $\frac{3}{8}$ " x 24 threads, 12' coax with connector. 2 lbs.



Bumper Mount

BM-1 Fits any shape bumper

Design is rugged for supporting Hustler antenna with standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits any size or shape bumper inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and bumper strap clamp at bottom. Mount includes 180° adjustable swivel ball for vertical positioning of antenna. Hardware is zinc plated for superior resistance against corrosion. Shipping Wt. 2.70 lbs.



Quick Disconnect

100% Stainless Steel

QD-1

Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and largest size mobile antennas. Equipped with $\frac{3}{8}$ "-24 threads, female one end and male on the other. Shpg. wt. .40 lbs.



Resonator Spring

RSS-2

Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This $\frac{3}{4}$ " x $3\frac{1}{2}$ " spring absorbs shock when antenna strikes overhanging obstructions. Supplied ready for easy installation with $\frac{3}{8}$ "-24 threads, female on one end, male on the other. Shpg. wt. .36 lbs.



Coax Leads

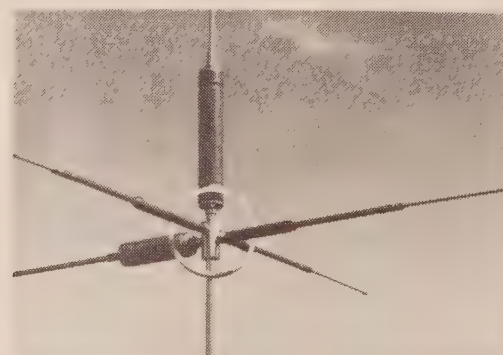


LU-216 216" top-quality RG-58 coaxial cable with PL-259 connectors on both ends.

Shipping Weight: 0.76 lb.

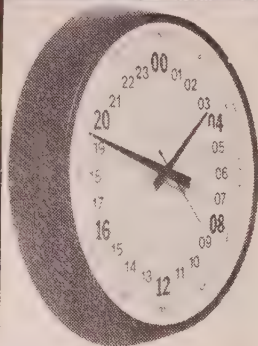
L-14-144 144" top-quality RG-58 coaxial cable with PL-259 connector on one end and split end with lugs on the other. Shipping Weight: 0.51 lb.

L-14-240 Same as L-14-144 except 240" coaxial cable. Shipping Weight: 0.71 lb.



X-PANDA-FIVE Change bands without changing resonators. This multi-band adaptor for HUSTLER or similar mobile antenna systems allows adding up to four more resonators to the mast for multi-band mobile operation.

CLOCKS



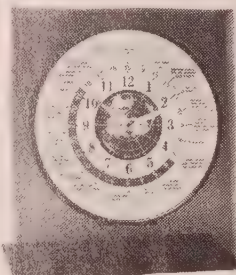
BMI 973A
24-hour Time Format
Wall Clock
15 sec. per month Quartz
accuracy. Single C cell
operates for over 1 year.
12" diameter, 1 3/4" deep.
\$44⁹⁵



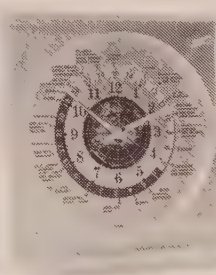
ICOM GC-5
World Clock
Makes DX operation more
convenient by providing
time information for every
region in the world. Battery
operated (one AA), and
includes an alarm function.
Attractive desk-top styling.
\$89⁹⁵

WORLD CLOCKS

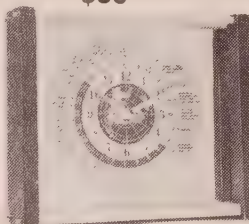
Large 6 1/4" diameter dual-dial shows 12 and 24-hour Local
Time with day and night indication in major World cities.
Seconds indicator, ± 15 sec./month Quartz accuracy,
requires 'AA' battery (not included). Gold (G) and silver (S)
faces, stand alone, or in attractive acrylic or lucite mounts.



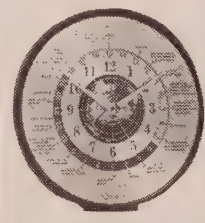
M-3111A(G)
Gold/smoked acrylic mt.
M-3111A(S)
Silver/smoked acrylic mt.
\$36⁹⁵



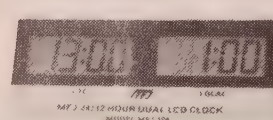
M-3104L
Thick, clear lucite mt.
\$69⁹⁵



M-3202W(G)
Gold/clear acrylic & wood
\$59⁹⁵



M-8201(G)
Gold/stand alone base
\$34⁹⁵



MFJ 24 Hour LCD Clocks Dual Clock with separate UTC
and local time displays or Single Clock with 24 hour time
only. Brushed aluminum frame, 5/8" numerals, sloped
face. Month-day-hour-minute-second, battery included.

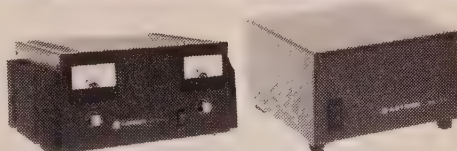
MFJ-108 Dual display, 4 1/2" w x 1 1/2" h x 2" d **\$19⁹⁵**
MFJ-107 Single display, 2 1/4" w x 1 1/2" h x 2" d **9⁹⁵**



VHF Converter for HT's

MFJ-313 Extends coverage for reception
of Police, Fire and Weather bands on syn-
thesized/scanning 2M HT's. Installs
between HT and antenna. Feed thru allows
simultaneous scanning of 2M and con-
verter bands. Bypass allows 2M transmitting
up to 5 Watts. 2 1/4" h x 1 1/2" w x 1 1/2" d, BNC
connectors, uses AAA battery..... **\$39⁹⁵**

ASTRON Power Supplies



Features: 105-125V AC input - 13.8V DC output,
internally adjustable 11-15V DC Electronic regulation with
fold-back current limiting and crowbar over-voltage
protection. Heavy duty heat sink, chassis mounted fuse,
three wire power cord, 1 year warranty, U.S. made.

Switchable volt/amp meter on RS-12M, 20M, 35M and
50M. Separate volt and amp meters and front panel voltage
adjustment 5-15V DC on VS-20M, 35M and 50M. RM-35M
and RM-50M are designed for rack mounting.

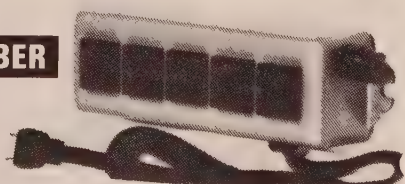
Astron Model	Cont. Amps	ICS Amps	Size (") h x w x d	Ship. Wt.	Regular Price	SALE Price
RS-7A	5	7	3 3/4 x 6 1/2 x 9	9	\$64.95	\$49⁹⁵
RS-10A	7.5	10	4 x 7 1/2 x 10 3/4	11	79.95	62⁹⁵
RS-12A	9	12	4 1/2 x 8 x 10 3/4	13	89.95	69⁹⁵
RS-20A	16	20	5 x 9 x 10 1/2	18	115.95	89⁹⁵
RS-35A	25	35	5 x 11 x 11	27	174.95	134⁹⁵
RS-50A	37	50	6 x 13 3/4 x 11	46	253.95	199⁹⁵
with switchable volt and ampere meter						
VS-20M	16	20	5 x 9 x 10 1/2	18	137.95	109⁹⁵
VS-35M	25	35	5 x 11 x 11	27	194.95	149⁹⁵
VS-50M	37	50	6 x 13 3/4 x 11	46	288.95	229⁹⁵
w/variable output & separate volt/amp meters						
RM-35M	16	20	5 x 9 x 10 1/2	20	162.95	129⁹⁵
VS-35M	25	35	5 x 11 x 11	29	222.95	169⁹⁵
VS-50M	37	50	6 x 13 3/4 x 11	46	314.95	249⁹⁵
Rack mount models with meters						
RM-35M	25	35	5 1/4 x 19 x 12	38	289.95	239⁹⁵
RM-50M	37	50	5 1/4 x 19 x 12	50	329.95	269⁹⁵



MAXON MX-49SA Small, Lightweight Voice-Activated
FM Two-Way Radio. Built-in VOX circuit - transmit by
just speaking into the headset mic, or use VOX-Bypass
switch for push-to-talk operation. Large 3-position
volume and mic sensitivity switches, battery low LED
indicator. Lightweight adjustable headset with whip
antenna, boom mic and wind screen. 49 MHz dual
conversion receiver for crisp, clear reception. Powered
by one 9V battery, aver. range 1/4 mile - 1/2 mile max.
4 7/8" x 2 1/2" x 7/8", 9 oz. • **\$29⁹⁵** ea; 2 or more **\$26⁹⁵** ea.

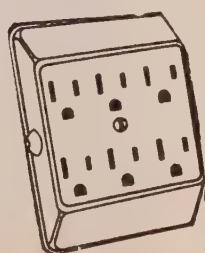
For other models see Maxon in Price List

WABER



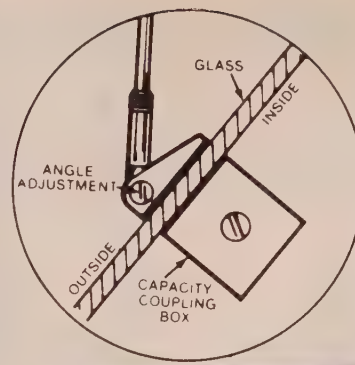
Multiple Outlet Strips

Convenience plus protection from overloads. Each
model features a self-activating, push-to-reset circuit
breaker that shuts off all power should an overload
occur. Double grounded cord, outlets, case and metal
components. 15A/125V, 1875 Watts .. See Price List



LG-10 LINEGARD Surge Protector

Protects against brief, high volt-
age spikes that can occur from
nearby lightning strikes, switch-
ing appliances, utility problems,
etc. Plug into any 15A, 125VAC
outlet, then plug equipment
into the Linegard unit.... **12⁹⁵**



ANTENNA SPECIALISTS Thru-glass Mobile Antennas.
No holes to drill! Tuning unit mounts to glass inside of
vehicle and couples to antenna mounted on glass
outside. Its 1/2-wave design requires no ground plane
and actually performs equal to a 5/8. Removable
without damage. Rated for 100W continuous, 150W
intermittent. With special epoxy, 15' coax and PL-259.
Models for 144, 220 and 440 MHz See Price List

Larsen Antennas

for 6 - 2 - 1 1/4 - 3/4 meters
with mounts for any mobile need.



Permanent mounts:

K-Style (A) Body/Roof mount. NLA series requires
only a 3/8" hole in fender, roof or trunk. NMO series is
designed for Motorola TAD and TAE type mounting
hardware and requires a 3/4" hole.

TMB (B) Trunk Mounting Bracket. A stainless steel "L"
bracket that fastens to rim of trunk opening with 3
screws. Trunk lid opens/closes without obstruction.

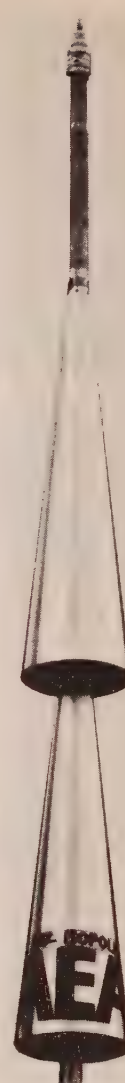
Temporary mounts:

TLM (C) Trunk Lid Mount. No holes - clamps into place
without drilling or cutting, and won't mar vehicle finish.

MM (D) Magnetic Mount. Low profile, with heavy duty
magnet that holds tight to any ferrous metallic surface
on your vehicle. Soft bottom surface protects finish.

GC (E) Gutter Clamp. Conveniently clamps to the rain
gutter of vehicle without marring the finish. Heavily
plated for all-weather protection and designed for
positive ground plane to assure full antenna efficiency.

All models come with 17' of RG-58 A/U coax cable,
PL-259 plug, allen wrench, instructions and frequency
cutting chart..... See Price List under LARSEN



AEA

IsoPole™ Antennas

IsoPole-144

Freq.....135-160 MHz
Imp.....50 Ohms
Bw.....12 MHz
Power.....1KW
Gain.....3 dbd
Length 125.5"
Area.....1 sq. ft.
Mast.....8" x 1 1/4"
Wt.....5 lbs.
Conn.....PL-259
\$49⁹⁵

IsoPole-220

Freq.....210-230 MHz
Imp.....50 Ohms
Bw.....15 MHz
Power.....1KW
Gain.....3 dbd
Length 79.25"
Area.....0.75 sq. ft.
Mast.....5 1/2" x 1 1/4"
Wt.....4 lbs.
Conn.....PL-259
\$49⁹⁵

IsoPole-440

Freq.....415-465 MHz
Imp.....50 Ohms
Bw.....22 MHz
Power.....1KW
Gain.....3 dbd
Length 46"
Area.....0.2 sq. ft.
Mast.....6" x 1 1/4"
Wt.....2.5 lbs.
Conn.....Type N
\$64⁹⁵

Gain figures shown in
dbd which is gain over
a dipole in free space.

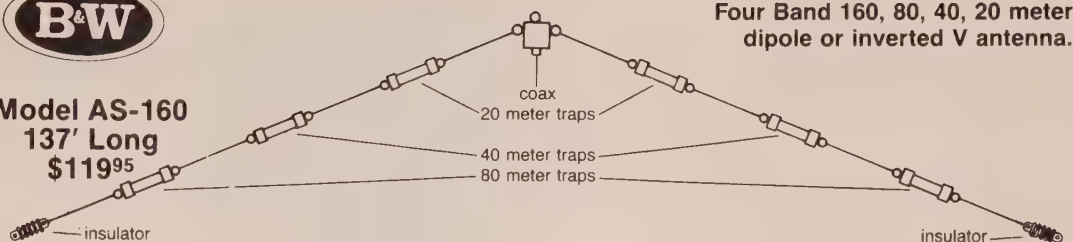
Mast is not included,
suggest purchase at
local Hardware store.



Antennas for LIMITED SPACE



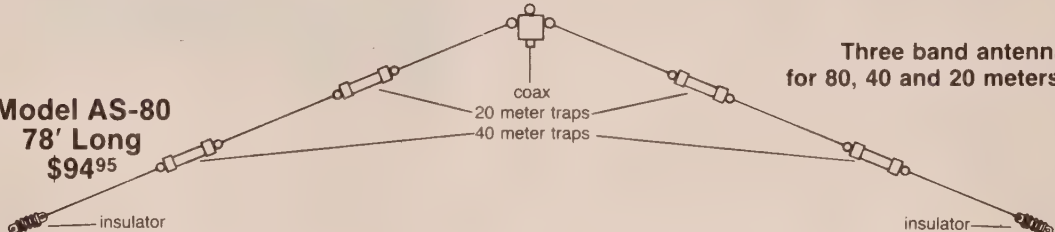
Model AS-160
137' Long
\$119⁹⁵



Four Band 160, 80, 40, 20 meter dipole or inverted V antenna.

The Model AS-160 at 137 feet long, is only about half the length of a full-sized 160 meter dipole, yet due to its design, it is an efficient radiator on the "top band". It also gives excellent full-size performance on the 80, 40 and 20 meter bands as well. Three sets of traps isolate a half-wave on each band to the inside sections of the antenna. When using a "no-tune-up" solid-state transceiver for 160 meter operation, an antenna tuner is recommended to provide a better match and greater operating bandwidth. SO-239 connector for direct feed with 52 ohm coaxial cable. Rated at 500 Watts PEP.

Model AS-80
78' Long
\$94⁹⁵



Three band antenna for 80, 40 and 20 meters.

The Model AS-80 is similar in construction to the AS-160 above. However, where space is at a premium, this antenna provides excellent coverage of the 80 meter band with only 37 feet of wire on each side of the center connector. Low SWR on 80, 40 and 20 meter band. Rated at 500 Watts PEP.

AS-40 40, 20, 15, and 10 meter bands \$119⁹⁵

The Model AS-40 is similar in construction to the AS-160 above, and consists of three sets of traps for coverage of the 40, 20, 15, and 10 meter bands. Overall length is 40 feet. Rated at 500 Watts PEP.

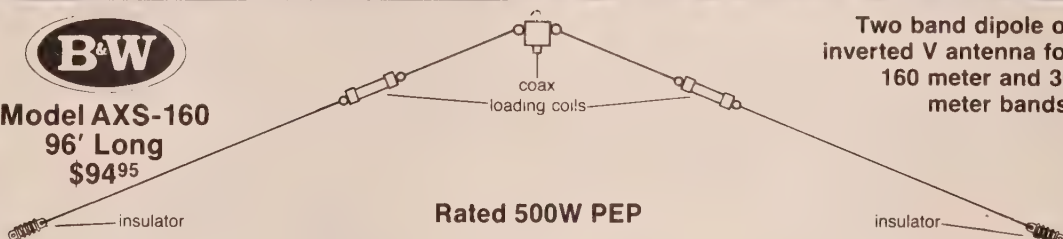
AS-20 20, 15, and 10 meter bands \$94⁹⁵

The Model AS-20 is similar in construction to the AS-80 above, and consists of two sets of traps for coverage of the 20, 15, and 10 meter bands. Overall length is 23 feet. Rated at 500 Watts PEP.

AMATEUR ANTENNAS for VERY LIMITED SPACE



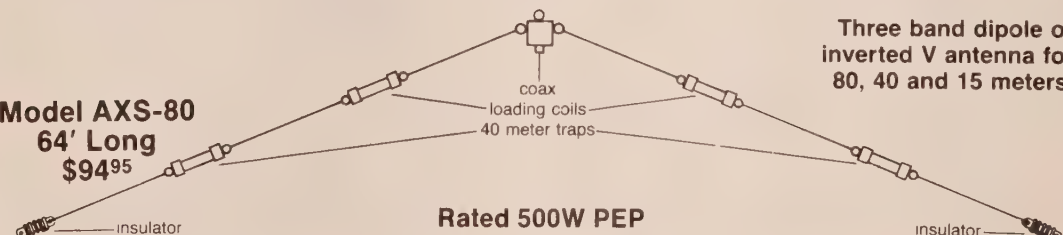
Model AXS-160
96' Long
\$94⁹⁵



Two band dipole or inverted V antenna for 160 meter and 30 meter bands.

Rated 500W PEP

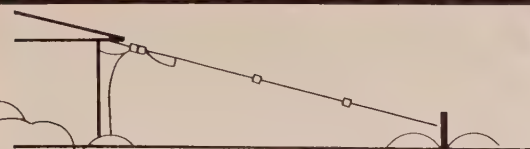
Model AXS-80
64' Long
\$94⁹⁵



Three band dipole or inverted V antenna for 80, 40 and 15 meters.

Rated 500W PEP

SHIPPING	Model AS-160.....8	Model AS-40.....7	Model AXS-160.....6
WGTS. (Lbs.):	Model AS-80.....6	Model AS-20.....6	Model AXS-80.....6



ALPHA DELTA DX-SWL Sloper - \$69⁹⁵

- Multi-band SWL performance on 13, 16, 19, 21, 25, 31, 41, 49, 60, 90, 120 meters + AM broadcast in a single antenna.
- Efficient, multi-band SWL frequency selection by means of special RF choke-resonators - no lossy/narrow band traps.
- Overall length - only 60 feet. Uses single elevated support, installs easier than a dipole.
- Sloping configuration provides maximum low-angle reception.
- 50 ohm feed point at the apex of antenna for maximum DX reception. A connector is provided on the mounting bracket for connection of 50 ohm coax.
- Fully assembled, ready to use and built for long life. Rugged construction, can even be used to transmit - up to 2KW.



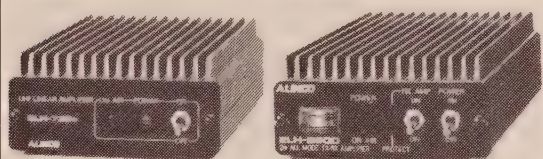
ALPHA DELTA Transient Voltage Protector

AC-TT A plug-in-the wall unit with two outlets, status light, 15A circuit breaker, and 3-stage automatic surge protection circuit. Protects equipment by limiting line voltage spikes to 184V @ 1ma. Handles surges up to 6KV @ 2000A. Rated for continuous 15A @ 125V \$29⁹⁵



ALINCO
See Price List for complete line.

ALINCO ALD-24T VHF/UHF Dual Band FM Transceiver. Covers 144-148 MHz and 440-450 MHz. 25W output (Hi), 5W (Lo). Memories, scanning, internal duplexer, built-in DTMF encoder, 16 button microphone 5 1/2" w x 2" h x 6 1/2" d, 2.64 lbs ... \$499⁹⁵



ALINCO VHF/UHF RF Power Amplifiers for 2-meters or 70cm. Models for 1 to 3W input, 30 or 50W output. Silver grey anodized chassis with black front panel compliments shack or mobile. Heavy duty heat sink for longer transmissions, lowpass filter for clean signal, protection circuit. Models with receive pre-amplifier, RF meter & protection circuit LED ... See Price List



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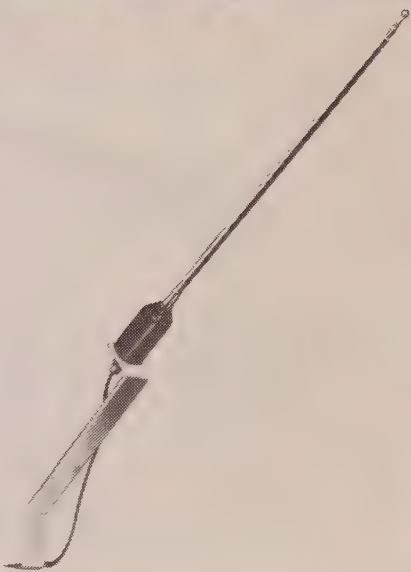
ORLANDO, Fla. 32803
621 Commonwealth Ave.
Phone (305) 894-3238
Fla. WATS 1-800-432-9424
Outside Florida 1-800-327-1917

CLEARWATER, Fla. 34625
1898 Drew Street
Phone (813) 461-4267
No In-State WATS
No Nationwide WATS

LAS VEGAS, Nev. 89106
1072 N. Rancho Drive
Phone (702) 647-3114
No In-State WATS
Outside Nevada 1-800-634-6227

CHICAGO, Illinois 60630
ERICKSON COMMUNICATIONS
5456 N. Milwaukee Avenue
Phone (312) 631-5181
15 min. from O'Hare!

B&W Antennas & Accessories



AP-10 Portable antenna for apartments, hotels, and travel. Operates on 2, 6, 10, 15, 18, 20, 30, and 40 meters. Tunes to low VSWR, handles 300 watts, 22½" long, extends to 57", less than 2 lbs. With all coils, 10' of coax and counterpoise wire... **\$49⁹⁵**



AT-110 Preassembled 5-Band trap dipole for 10, 15, 20, 40 and 80 meters. Rated 2 KW PEP, 110' long. Low VSWR on 80 and 40 meters, but somewhat higher on 10, 15 and 20 - typically 2:1 to 3:1. Wire length adjustments provided for tuning... **\$69⁹⁵**

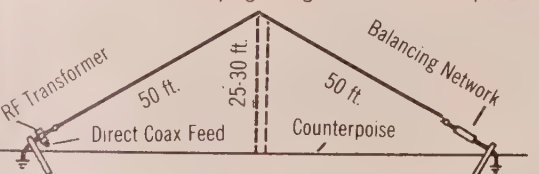
AT-110K As above, but kit of #14 stranded copperweld wire, center connector, traps, end insulators & instructions... **\$59⁹⁵**

AT-55 Preassembled trap dipole for 10, 15, 20 & 40 meters, 55' long. Same construction and ratings as AT-110 above... **\$62⁹⁵**

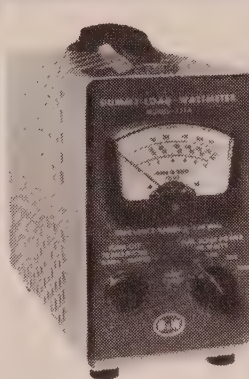
AT-55K As above, but kit of #14 stranded copperweld wire, center connector, traps, end insulators & instructions... **\$54⁹⁵**



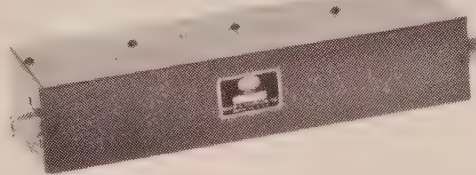
AC 3.5-30 Preassemble and pretuned broadband folded dipole with balun. Continuous coverage from 3.5-30 MHz with less than 2:1 VSWR. Rated 500W PEP, 90' long, can be installed in as a flat top, inverted-V or in a sloping configuration for DX... **\$149⁹⁵**



AC 1.8-30 Continuous coverage end-fed "V" antenna. Covers 1.8-30 MHz continuous with VSWR less than 2:1, rated 500W PEP. Requires only 80' horizontally, and, when space is limited, can be shorted further with only slight loss of efficiency... **144⁹⁵**



334A DUMMY LOAD WATTMETER
52-ohm non-inductive, oil cooled with heat limit warning light. **Frequency Range:** DC-300MHz. **VSWR:** Less than 1.3:1 to 250 MHz. **Power:** 1000W intermittent. **Ranges:** 10, 100, 300 and 1000W. Type-N connector. 4¾" x 9" x 10¼", 12 lbs... **\$194⁹⁵**



LOW PASS FILTERS

Eliminate Television and Radio interference on due to transmitter harmonic content. Available for HF (1.5-30 MHz), or 6-meter band, 100 or 1000 watts. Sharp cutoff, high attenuation of undesired harmonic content with less than 0.3 db insertion loss.

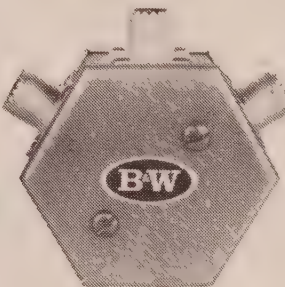
FL-10/100/424 1.5-30 MHz, 100W, 52 ohms... **\$23⁵⁰**

FL-10/1500/425 1.5-30 MHz, 1KW, 52 ohms... **\$32⁰⁰**

FL-10/1500/70/426 1.5-30 MHz, 100W, 72 ohms... **\$34⁵⁰**

FL-6/100/423 6-meters, 100W, 52 ohms... **\$27⁰⁰**

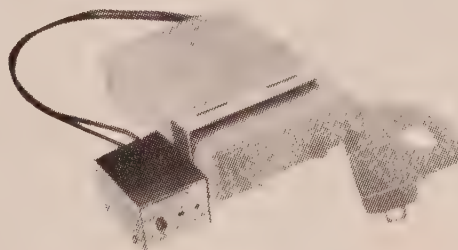
FL-6/1500/427 6-meters, 1KW, 52 ohms... **\$38⁰⁰**



CR-115 COAXIAL RELAY

For switching antennas from transmit to receive, etc. The receiver terminal grounds when in Transmit position. **\$32⁵⁰**

Frequency: 0-150 MHz
VSWR: less than 1.15:1
Power: 1000 Watts, CW
Coil Voltage: 48-130V AC
Connectors: SO-239, UHF



AT-200 2-meter Antenna Matcher. Allows use of your auto AM/FM antenna for 2m mobile operation. Tunes 144-148 Mhz, has front-panel tune and load adjustments with LED output indicator. 50 ohms input, adjusts to 1.2:1 or less with most antennas; rated at 50 Watts. 2½" x 2½" x 3¼", 1 lb... **\$33⁰⁰**

MFJ Antenna Tuners



MFJ-16010 (top) Ultra compact random wire tuner. Covers 1.8 to 30 MHz, handles 200 Watts. Lets you operate all bands anywhere (apartment, motel, camping, etc.) with any transceiver using only a random length of wire. 2" w x 3" h x 4" d... **\$39⁹⁵**

MFJ-901B The "smallest" Versa Tuner. Matches coax, random wires and balanced lines continuously from 1.8 thru 30 MHz, 200W. Very popular for use between a tube or solid-state transceiver and a final amplifier for proper matching and full drive. Built-in 4:1 balun for balanced lines. 5" w x 2" h x 6" d... **\$54⁹⁵**

MFJ-941D Versa Tuner II. 300W, matches dipoles, inverted Vee, random wires, verticals, mobile whips, beams, balanced and coax lines from 1.8-30 MHz. SWR/Wattmeter, 4:1 balun. Antenna switch selects 2 coax lines (direct or thru), random wire/balanced line and bypass. 11" w x 3" h x 7" d... **\$89⁹⁵**

MFJ-945C Small, compact mobile tuner. Just right for mobile operation, a must for solid-state transceivers. Handles 300W PEP output. Extends antenna bandwidth so you can operate with low SWR without readjusting whip. Placement of controls and meter makes tuning safer while in motion. 8½" w x 2" h x 6" d... **\$72⁹⁵**

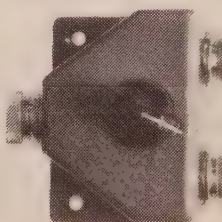
MFJ-949C Deluxe Versa Tuner II. Same power and tuning capability as MFJ-941D described above. Has lighted cross-needle SWR/Wattmeter, built-in 300W, 50 ohm dummy load and 4:1 balun for balanced lines. 10" w x 3" h x 7" d... **\$134⁹⁵**

MFJ-962B 1.5KW Versa Tuner III. Matches coax, balanced line or random wire 1.8-30 MHz. Lighted cross-needle SWR Wattmeter. 6-pos. antenna switch - 2 coax lines (direct or thru), wire & balanced lines. 4:1 balun. 10¾" w x 4½" h x 14¾" d... **\$199⁹⁵**

MFJ-989B 3KW Versa Tuner V. Matches coax and balanced line; 1.8-30 MHz. Roller inductor with spinner knob and 3-digit turns counter for precise inductance control. Lighted cross-needle SWR/Wattmeter, built-in 300 Watt 50 ohm load, 4:1 balun, 6 pos. antenna switch, tilt bail. 10¾" w x 4½" h x 14¾" d... **\$309⁹⁵**

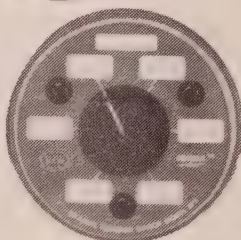


MFJ-910 Six position mobile matcher. Capacitively matches mobile antennas to 50 ohms. A lower SWR results in more power into the antenna from solid-state rigs. Only 2½" x 2½" **19⁹⁵**

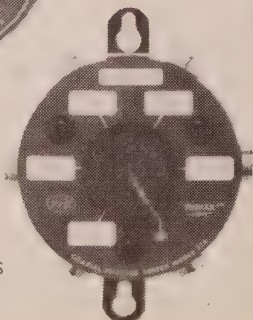


MFJ-1702 Two position cavity type antenna switch. Good to 500 MHz. Less than 0.2 loss. VSWR 1:1.2. Better than 50dB isolation at 300 MHz and 50 dB at 450 MHz. Rated at 2.5KW PEP, 1KW CW. Unused terminal grounds for static/lightning protection... **\$19⁹⁵**

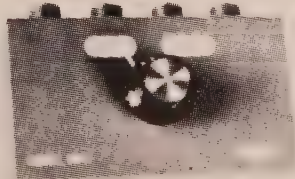
B&W Coaxial Switches



CSA-6G/375
6-position
Rear connectors
Grounding
\$28²⁵



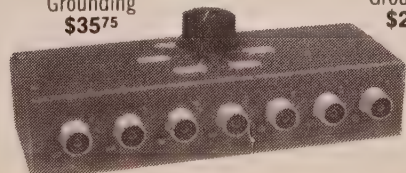
CSR-5G/376
5-position
Side connectors
Grounding
\$28²⁵



CS-2-2/594
2-pole, 2-position
Side connectors
Desk/wall mount
Grounding
\$35⁷⁵

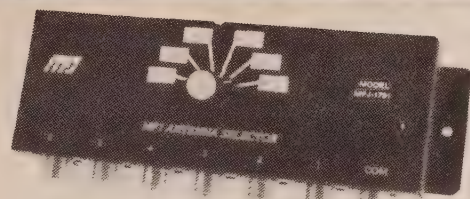


CS-3G/593
3-position
Desk/wall mount
Grounding
\$29²⁵

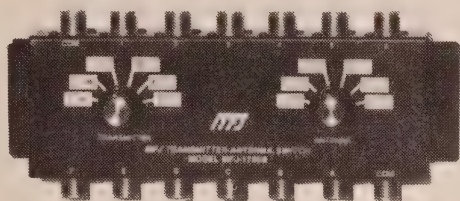


CS-6G/595
6-position
Desk/wall mount
Grounding
\$33⁷⁵

MFJ Accessories



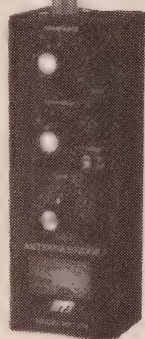
MFJ-1701 6-position antenna switch. One common input and six selectable outputs with SO-239 connectors. Rated for 2KW SSB, 1KW CW, 50 to 75 ohms. Unused positions ground for static/lighting and RF protection. Desk or wall mount... **\$29⁹⁵**



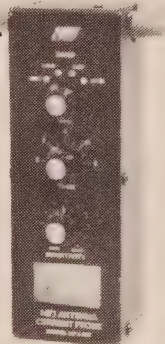
MFJ-1700B Combination antenna/transmitter switch. Select from 1 of 6 antennas and 1 of 6 transmitters in any combination. Antenna tuner, SWR/wattmeter, linear, etc., can be connected and left in the circuit to operate with any combination of antenna and transceiver. Handles 2KW PEP, 50 to 75 ohms. Unused positions ground for protection. 10" w x 3" h x 1 1/2" d **\$54⁹⁵**

MFJ-204B ANTENNA BRIDGE

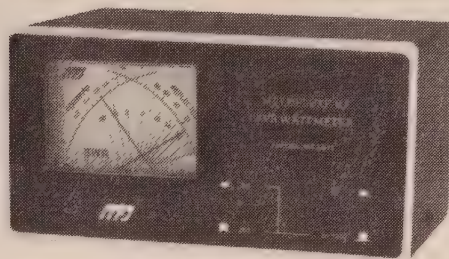
- Measure antenna resistance up to 500 ohms.
- Measure resonant frequency of antenna.
- Covers all Ham bands up to 30 MHz.
- Frequency counter jack included.
- Easy 4-step operation.
 1. Connect antenna.
 2. Set frequency.
 3. Adjust bridge for meter null.
 4. Read antenna resistance.
- Self-contained, portable - only 4" h x 2" w x 2" d.
- Uses 9-volt battery or 110V AC with adaptor.
- **\$72⁹⁵** MFJ-1312 AC adaptor - **\$9⁹⁵**



MFJ-206 Antenna current probe. Monitors RF currents from 1.8-30 MHz by sensing magnetic field around a current carrying conductor. Determine current distribution and RF radiation pattern of antennas, transmission lines, ground leads, building wiring, guy wires, enclosures, shields, etc. Adjust antennas for maximum efficiency/gain/front-to-back ratio. Check ground system effectiveness, determine best place to mount mobile antennas, eliminate RFI by pinpointing leaky shielding, check field strength. Requires 9V battery... **\$72⁹⁵**



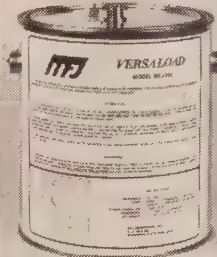
MFJ-202B RF Noise Bridge with 1-100MHz measuring range. Lets you quickly adjust your single or multi-band dipole, inverted Vee, beam, vertical, mobile whip or random wire for maximum performance. Tells resonant frequency, radiation reactance, and whether to shorten or lengthen your antenna for minimum SWR. Works with any receiver or transceiver. 4 1/4" x 4 1/2" x 2" .. **\$54⁹⁵**



MFJ-815 CROSS-NEEDLE type SWR/Wattmeter for 1.8 to 30 MHz. Push button range selectors allow reading SWR, forward and reflected power quickly, at a glance, without adjustments. Accuracy is 10% of full scale reading. Power ranges are 20, 200 and 2000W forward; 5, 50 and 500W reflected **\$54⁹⁵**

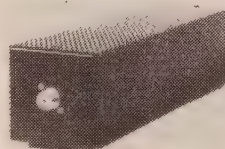
DUMMY LOADS

MFJ-250 Oil filled. Rated 1 KW CW or 2 KW PEP for 10 minutes. Half rating for 20 minutes, continuous at 200W CW, 400W PEP. VSWR under 1.2 to 30MHz, 1.5 to 300MHz. Oil contains no PCB. 50 ohm non-inductive resistor, safety vented. 7 1/2" h x 6 3/4" d. Supplied with oil **\$44⁹⁵**



MFJ-260 300 Watt DRY load. Air-cooled, non-inductive 50 ohm resistor in perforated metal housing. Full load for 30 sec., de-rating curves to 5 min. VSWR 1.1 to 30MHz, 1.5:1 to 300MHz. 2 1/2" h x 2 1/2" w x 7" d **\$26⁹⁵**

MFJ-262 1 KW DRY load. As above but, 3" x 3" x 13", VSWR 1.5:1 to 30MHz **\$59⁹⁵**



MFJ-1621 Multi-band portable antenna for 40, 30, 20, 15, and 10 meters. Operate from apartments, motels, campsites, vacation spots, etc. Features a 54" telescoping whip mounted on a self-standing 5 1/2" x 6 3/4" x 2 1/4" phenolic case with a built-in antenna tuner and field strength meter. Rated at 300W PEP, comes with 50 ft. of RG-58 coaxial cable..... **\$72⁹⁵**



MFJ-701 Radio frequency interference (RFI) filter for use on antenna, digital data, audio, telephone and power cables. Functions like a toroid. Consists of a two-piece ferrite core and a clamp that assembles around small, large and ribbon cables. Effective from 0.5MHz to 200MHz..... (Package of 4) **\$14⁹⁵**

TOWERS

ROHN

Heavy Duty or Extra Heavy Duty for HAM RADIO applications



- Rugged, all Steel Construction
- "X" Brace design for greater strength.
- Galvanized finish for long life.
- Rotators easily installed.
- Tower can be fully assembled on the ground and hinged up, or built vertically, section by section.
- Load rated for Free Standing, no guy wires are required.
- Supplied with base stubs for mounting in concrete and rotator plate.

Model	Ht.	Windload	Wt.#	Price
HBX-40	40'	10 sq. ft.	228	\$269⁹⁵
HBX-48	48'	10 sq. ft.	303	\$369⁹⁵
HBX-56	56'	10 sq. ft.	385	\$469⁹⁵
HDBX-40	40'	18 sq. ft.	281	\$339⁹⁵
HDBX-48	48'	18 sq. ft.	363	\$459⁹⁵

NOTE: ROHN states that "antennas developing a large twisting moment due to wind must not be used on these towers. Antennas should be limited to those having a maximum boom length of 10 ft."

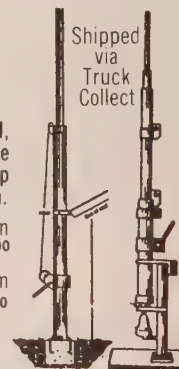
Shipped Truck (Freight Collect) from Milwaukee, WI or various ROHN Warehouses in the U.S.A.

US TOWER

MA-series crank-up masts. Improved, slender design gives a clean, flagpole look while allowing safe installations up to 10 square feet of antenna at 50 mph.

Model MA-40 Two sections. Maximum height 40', min - 21'6", 300#.... **\$549⁰⁰**

Model MA-550 Three sections. Maximum height - 55', min - 22'1", 525#... **\$899⁰⁰**



More US TOWER ...
see Display Pages and Price List.

also available:

Hy-Gain Steel Crank-up Towers ...
see Display Page and Price List.



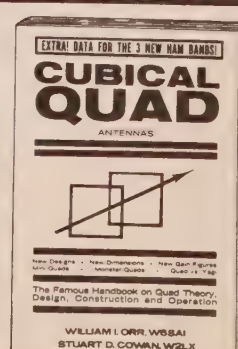
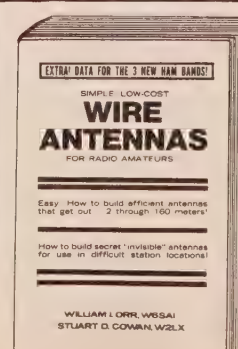
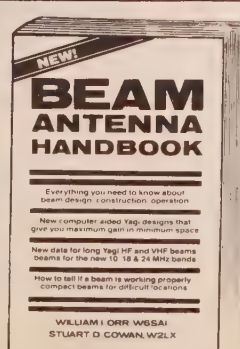
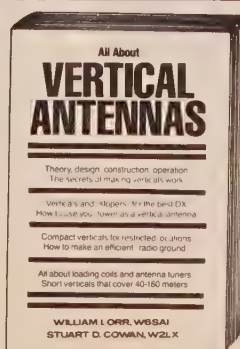
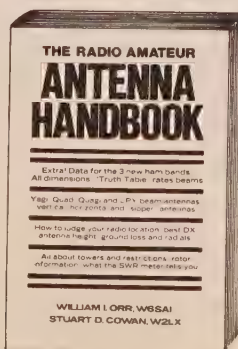
USE
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CREDIT
CARD







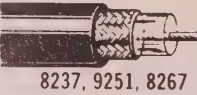



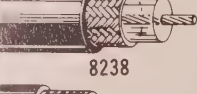
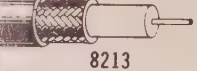
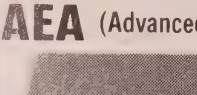

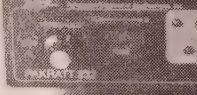
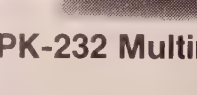
RADIO PUBLICATIONS

Popular
ANTENNA
Books

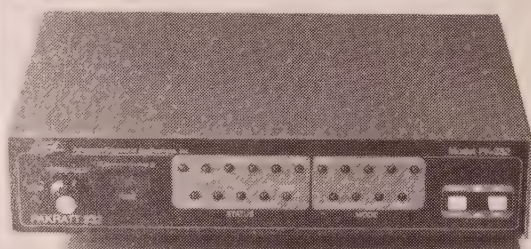
See Price List



BELDEN Coaxial Cable

	Belden number	RG-type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (ohms)	Vel. Factor	Loss/100' @100 MHz
	9201, 8240	58/U	.193	#20 solid copper	Solid polyethylene	78% bare copper	PVC	53	66%	4.5 dB
	8259, 8262	58/U	.193	#20 solid copper	Solid polyethylene	95% tinned copper	PVC	53.5	66%	4.5 dB
	8219	58A/U	.193	#20 stranded tinned cop.	Solid polyethylene	96% tinned copper	PVC	50	66%	4.9 dB
	8219	58A/U	.193	#20 stranded tinned cop.	Cellular polyethylene	96% tinned copper	PVC	50	78%	4.5 dB
	9258	58C/U	.193	#20 stranded tinned cop.	Solid polyethylene	95% tinned copper	Non-contam. PVC	50	66%	4.9 dB
	8237, 9251, 8267	8/X	.242	#16 stranded copper	Cellular polyethylene	95% bare copper	PVC	50	78%	3.7 dB
	8214	8/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	PVC	52	66%	2.2 dB
	9913	8/U	.405	#13 stranded copper	Cellular polyethylene	97% bare copper	PVC	50	78%	1.8 dB
	8241	8/U	.405	#9 1/2 solid copper	Semi-solid polyethylene + 88% braid	100% foil	PVC	50	89%	1.4 dB
	8238	8A/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	52	66%	2.2 dB
	8213	213/U	.405	#13 stranded copper	Solid polyethylene	97% bare copper	Non-contam. PVC	50	66%	2.2 dB
	8213	59/U	.240	#22 solid cop. clad	Solid polyethylene	95% bare copper	PVC	73	66%	3.4 dB
	8213	11/U	.405	#18 stranded tinned cop.	Solid polyethylene	97% bare copper	PVC	75	66%	2.0 dB
	8213	11/U	.405	#14 solid copper	Cellular polyethylene	95% bare copper	PVC	75	78%	1.5 dB

AEA (Advanced Electronic Applications, Inc.)



PK-232 Multimode Data Controller

Six Modes! Morse Code Baudot (RTTY) ASCII AMTOR Packet + Weather FAX

Any RS-232 compatible computer or terminal can be connected directly to the PK-232, which in turn interfaces with a transceiver to provide six mode operation. Only a simple terminal program is required to interface the computer or terminal to the PK-232. All signal processing, protocol, and decoding software is in ROM in the PK-232. Contains a VHF/HF/CW modem with an 8-pole bandpass filter, 4-pole discriminator, and 5-pole post detection low pass filter. Twenty-one front panel LEDs for constant status and mode indication. Two identical back panel radio ports allow VHF or HF radio selection with a front panel switch. Other rear panel connections for external modem disconnect, FSK and scope outputs, CW keying jacks, and RS-232 terminal interface. The RS-232 connector is also used for attaching a graphics compatible printer for producing Weather FAX maps and satellite photos. AEA's 240 page User's Manual includes complete documentation, schematics and a "Quick Start" section to get operational quickly and easily. 11" w x 8 1/4" d x 2 1/2" h, 3 lbs. Requires 12-16V DC @ 700ma. **\$299⁹⁵**
AEA AC-4 12V DC 1A power supply **24⁹⁵**



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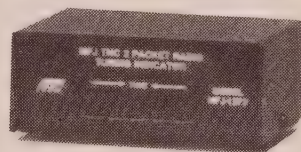


MFJ TNC-2 Packet Controller

MFJ-1274 A TAPR TNC-2 Clone that works on VHF, UHF, OSCAR, and other non-FM packet. TAPR HF/VHF modem, 20 segment LED tuning indicator, TTL serial port, lithium battery memory back-up. Interfaces with any computer with an RS-232 serial port and appropriate terminal program. Features AX.25 Level 2 Version 2 software, hardware HDLC for full duplex, true data carrier detect for HF, multiple connects. 256K EPROM and 16K RAM which is expandable to 32K with optional EPROM. Comes with easy-to-read manual, interconnecting cable (less connector) TTL serial port connector. Requires 12V DC **\$149⁹⁵**

MFJ-1270B Same as MFJ-1274 but without 20-segment LED tuning meter and switchable VHF/HF modem. **\$129⁹⁵**

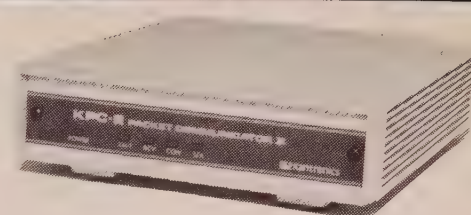
If you have a Commodore 64, 128 or VIC-20 you can use MFJ's optional Starter Pack to get on the air immediately. Includes interfacing cable, terminal software on disk or tape and instructions. **MFJ-1282** (disk) or **MFJ-1283** (tape) ... **\$19⁹⁵**



MFJ-1273 TNC Tuning Indicator. An MFJ clone of the TAPR tuning indicator. Allows quick tuning of HF, Oscar, and other non-FM packet stations. 20 LEDs give high resolution and wide frequency coverage. Shows which direction to tune and by centering a single LED, tuning is within 10 Hz. Plugs into the MFJ-1270, MFJ-1270B and all TNC-1s, TNC-2s, and clones that have the TAPR tuning indicator connector **\$49⁹⁵**

MFJ-1272 TNC to microphone Interface Box. Allows you to simultaneously connect your TNC and microphone. No need to disconnect microphone from rig. 4-pin mic jack on front panel with 4-pin female plug provided (not wired). RCA input jack for audio in, RCA jack for audio out to speaker **\$29⁹⁵**

Kantronics



KANTRONICS KPC-2 Packet Communicator II. From IBM to C-64, or any computer with an asynchronous serial port, you can now work packet on VHF or HF with one TNC, the KPC-2. Extra cost options are unnecessary. 1.9" h x 8" w x 5.9" d **\$159⁹⁵**

Features:

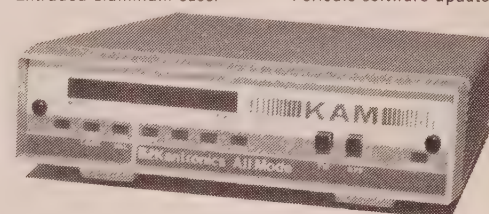
- AX.25 Version 2.0 software
- Supports multiple connects, up to 26.
- RS-232 or TTL compatible.
- HF modem included!
- Carrier Detect, and software squelch operation.
- FCC Part 15 Certified.
- Power supply/cables incl.
- Extruded aluminum case.

• All EPROM software is Kantronics sourced and copyright protected.

- 128K EPROM, 16K RAM expands to 32K, 4K EEPROM.
- Advanced software HDLC routines, eliminating costly out-of-date chips.

Factory Support:

- Programmers/engineers.
- Service representatives.
- Periodic software updates.



KANTRONICS KAM™ All-Mode Digital Communicator Gives CW, RTTY, ASCII, AMTOR, HF and VHF Packet all together in one unit. Combines features of the famous UTU-XT and KPC-2 to give a true all mode unit. 1 1/2" h x 6" w x 9" d **\$289⁹⁵**

Features:

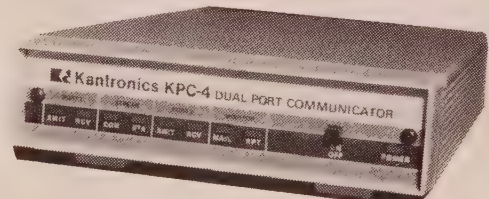
- Transmit and receive CW 6-99 wpm, RTTY/ASCII 45-300 Baud, ARQ, FEC, SELFEC, Listen ARQ, VHF/HF Packet.
- HF and VHF radio ports.
- Computer command driven, over 100 software commands.
- Bargraph tuning
- Limiter/limiterless operation on HF for weak signals.
- User programmable baud rates for RTTY/ASCII.
- User Programmable MARK and SPACE tones on HF.
- Selective RTTY Autostart.
- Separate CW demodulator filter with programmable center frequency and bandwidth.

- Separate CW keying relay for positive or negative keying.
- 12-pole programmable switched capacitance input filtering.
- Quartz synthesized AFSK or direct FSK operation.

- RS-232 or TTL level operation by jumper selection.
- 32K RAM, 256K EPROM, EEPROM parameter storage.
- Compatible with any computer having an asynchronous serial I/O port.
- FCC Part 15 compliant.

Special Features:

- Simultaneous HF/VHF Packet Connects and Digipeating.
- HF/VHF Gateway operation.



KANTRONICS KPC-4™ Dual Port VHF Packet Communicator.

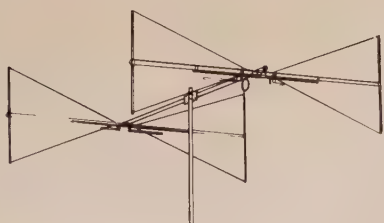
Provides simultaneous connects, digipeating, and gateway on two VHF radio ports. Lets you bridge two frequencies on one band, and operate cross band. RS-232/TTL terminal interfacing provides universal compatibility to all computers, including Commodores and PC compatibles. 1 1/2" h x 6" w x 8" d ... **\$299⁹⁵**

Features:

- Two simultaneous operable VHF radio ports, both ports operating at 1200 baud.
- Automatic gateway operation between ports.
- Command driven, like KPC-2 or KAM, with over 100 software commands.
- Personal packet Mailbox™

- External modem connection point provided for future use.
- RS-232 or TTL level operation by jumper selection.
- 32K bytes RAM, 32K bytes EPROM, 512 bytes EEPROM, 63B03X processor.
- Extruded aluminum case.
- ARRL adopted AX.25 protocol.
- FCC part 15 compliant.

KANTRONICS Kanterm 64/128 terminal program diskette for Commodore 64 and 128. Offers split-screen display, message buffers, disk storage, and type-ahead buffer. The C-128 runs in 128 mode and provides for 80-character lines. Can be used with most Kantronics "SMART" modems, such as the KPC-1, KPC-2, KPC-4, KPC-2400, KAM and UTU-XT/P **\$29⁹⁵**



BUTTERNUT HF ANTENNAS

**The HF5B "Butterfly"™
Compact Beam
for 20-17-15-12-10 meters**

- Unique design reduces size but not performance. Boom length 6 ft., wingspan 12½ ft.
- No lossy traps; full element radiates, 1.2KW final input.
- 3 dB gain on 20M, up to 5 dB 10/15M, rot. dipole on 17M.
- 2.9 sq. ft. wind area, weighs 17 lbs, turns with a TV rotor, accepts up to 1½" dia. mast.

VERTICALS

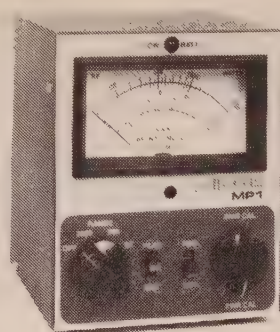
Uses Highest-Q tuning circuits (not lossy traps!) to out-perform other multiband designs of comparable size!

Model HF6V

- Automatic bandswitching on 80, 40, 30, 20, 15 & 10 meters
- Add-on kit for 17 & 12 meters
- Legal limit • 26 ft. tall

Model HF-2V

- DX the 40 & 80 meter bands.
- Automatic bandswitching, add-on units for 160 and 30 or 20 meters • Legal limit
- 32 ft. tall - may be top loaded for additional bandwidth.



MIRAGE HF/VHF WATT/SWR Meters

Either Model
\$159⁹⁵

FEATURES:

- Reads Peak or Average Power • Shows SWR directly without extra charts or graphs • Remote Coupler Mounting • High Quality Meter Movement

Frequency Range:

MP-1 (HF Model) 1.8 to 30 MHz

MP-2 (VHF Model) 50 to 200 MHz

Power Ranges: (Accuracy ±5% ±1% meter)

MP-1 25, 200 and 2000 Watts

MP-2 50, 500 and 1500 Watts

Power required to read SWR 1 or 2 Watts

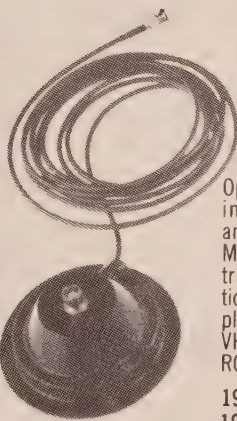
Functions Power: Forward/Reverse, Peak/Average, SWR

Input and Output Impedance 50 ohms, coaxial

Power Requires 9 VDC internal battery or AC adaptor.

Size and Weight 5¼" × 4½" × 5¾", 3½ lbs

MIRAGE Warranty 5 Years, parts and labor



RF PRODUCTS

Low Cost Magnetic Mounts

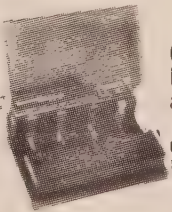
Operate an HT inside vehicle and increase range! Remove BNC antenna from HT and attach to Magnet Mount. Install on the roof or trunk and operate without obstruction. Large disc gives proper ground plane coupling for ¼ and ½-wave VHF and UHF antennas. Has 10' of RG-58 coax with BNC connector.

199-415 accepts BNC **\$15⁹⁵**
199-495 accepts PL-259... **18⁹⁵**

NICAD Batteries



Rechargeable up to 1000 times, one set can last for years replacing hundreds of Carbon-Zinc or Alkaline type batteries and saving money. Available in AAA, AA, C, D and 9 Volts.



CHARGERS

Charge 4 or 8
NICAD batteries
at one time.

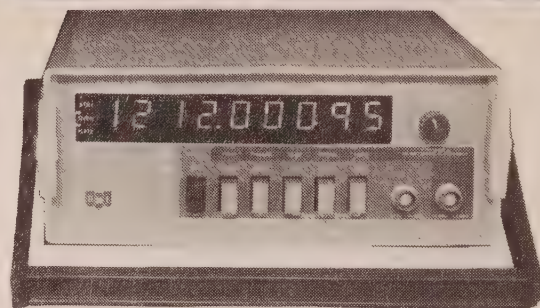
See Price List
under NICAD BATT.

New EIMAC 3-500Z Tubes

\$109⁹⁵ ea.
\$105⁰⁰ ea.
(2 or more)



DigiMax Counters



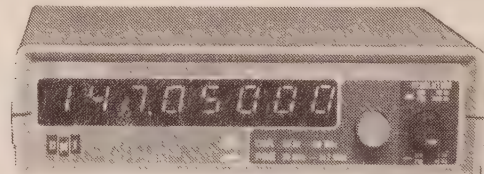
Model D-612/D-1200

Frequency Range (typical) 8 to 14.5 VDC @ 100-250 mA or 115VAC with optional AC-12 adapter
Non-prescaled 50Hz to 50MHz
Prescaled 10MHz to 1.2GHz

Resolution (selectable) Optional rechargeable Nicad batt. pack
Non-prescaled 0.1Hz; 1Hz; 10Hz
Prescaled 10Hz; 100Hz; 1kHz

Sensitivity (typical) D-612 using the AM-12 option will resolve 1/10Hz in 0.1 sec., 1/100Hz in 1 sec., and 1/1000Hz in 10 sec.
15mv to 50mv 50Hz to 25MHz
2mV to 20mV 25MHz to 450MHz
20mv to 30mv 450MHz to 1GHz

See DIGIMAX Price List



Model D-500/D-510

Frequency Range (typical) Requires 8 to 14.5 VDC @ 100-250 mA or optional AC-12 115VAC adapter.
Non-prescaled 50Hz-50MHz
Prescaled (D-500) 30MHz-512MHz
Prescaled (D-510) 30MHz-1GHz

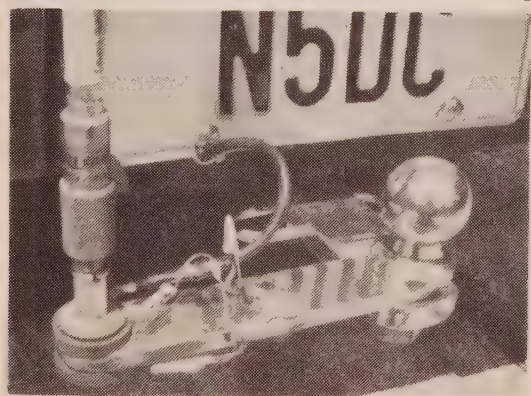
Resolution (selectable) D-612/D-1200 and D-500/D-510
Non-prescaled 1Hz; 10Hz
Prescaled 10Hz; 100Hz

Sensitivity (typical) Input Z: Non-prescaled 1 Meg in parallel with 25 pf; Prescaled 50 ohms. Accuracy: 1 ppm and 0.1 ppm.
Non-pres. 15mv-50mv 50Hz-25MHz
Prescaled 20-50mV 25MHz-450MHz
50-100mV 450MHz-1GHz

For Prices and Accessories
See DIGIMAX in Price List



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CARD

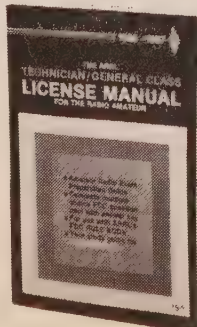


DC SALES 'Tenna Hitch': High-strength, chrome plated steel bracket with a standard 3/8" × 24 stud insulated antenna mount. Installs under the ball of your Class 1 or 2 trailer hitch for mounting an HF mobile antenna. Pull your trailer too! Handles largest antennas, no holes to drill, with all hardware ... **\$29⁹⁵**

ARRL License Manuals

- Amateur Radio Exam Preparation Guide
- Complete multiple choice FCC question pool with answer key
- For use with ARRL's FCC RULE BOOK

Technician-General Class
Advanced Class **\$500**
Extra Class **ea.**
FCC Rule book



To: **AMATEUR ELECTRONIC SUPPLY®**
4828 W. Fond du Lac Avenue
Milwaukee, WI 53216

I am interested in the following New Equipment:

I have to following to TRADE:

(What's your DEAL?; Rush quote, no obligation)

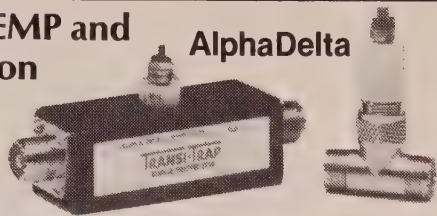
Name _____ Call _____

Address _____

City/State _____ Zip _____

Get lighting, EMP and static protection for receivers, transceivers, amplifiers . . .

AlphaDelta



with EMP Series Transi-Trap Surge® Protectors.

Model R-T and LT EMP Series Arc-Plug® cartridges - designed to protect against nuclear electro-magnetic pulse (EMP), and lightning surge voltage.

All Transi-Trap Protectors feature "isolated ground" to keep damaging arc energy from the equipment chassis.

Don't hook up your coax without one!

The 200W models are the most sensitive, and the best choice for receivers and transceivers. The 2KW models are less sensitive and are designed to protect equipment using a linear amplifier. However, for maximum protection you can use both at the same time; installing a 2KW at the amplifier output and a more sensitive 200W model between

transceiver and amplifier input. All models are designed for 50 ohms and the Arc-Plug® is easily replaceable if necessary.

UHF "T-type" connectors for use through 30MHz:

Model LT, 200W \$19⁹⁵

Extra LT Arc-Plug® cartridge . . . 14⁹⁵

Super Ruggedized, Super Low Loss Models, for use thru VHF/UHF, with UHF connectors:

Model R-T, 200W \$29⁹⁵

Extra R-T Arc-Plug® cartridge . . . 12⁹⁵

Model HV, 2KW 32⁹⁵

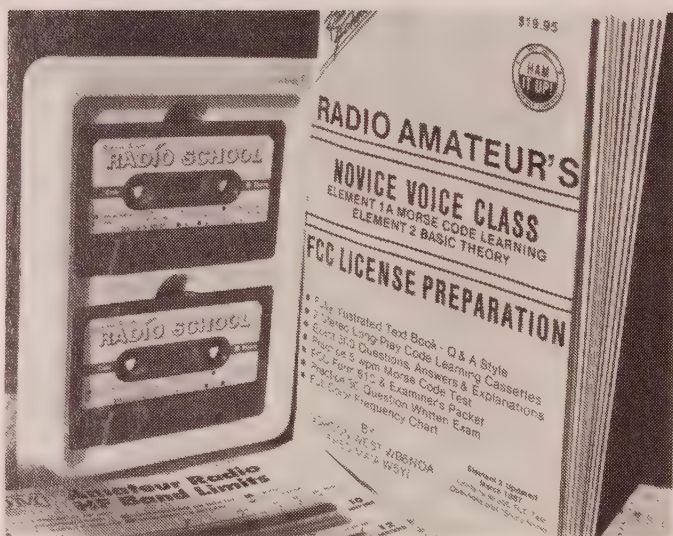
Extra HV Arc-Plug® cartridge . . . 15⁹⁵

Type-N connectors, good thru 1 GHz:

Model R-T/N, 200W \$36⁹⁵

Model HV/N, 2KW 29⁹⁵

GORDON WEST RADIO SCHOOL



RS-04 21-Day Novice Course • \$19⁹⁵

Code Tapes • 112 Page book • Bands Chart • All FCC Forms
Sample Tests • Hotline • Gift Certificates

Includes . . .

- Gift Certificates from various manufacturers when you receive your call letters (subject to change without notice).
- Coupon for FREE issue of CQ magazine and subscription discount.
- Hotline to Gordon West Radio School for student questions.
- ARRL membership forms • Ham radio equipment "Wish Books".
- School pen. • Course Completion Certificate.

RS-03B 112 page Novice Voice Class Book only, no tapes . . . \$4⁹⁵

See Price List for other GORDON WEST Code and Theory courses.



ARRL Tune in the World with HAM RADIO

Improved - 7th Edition

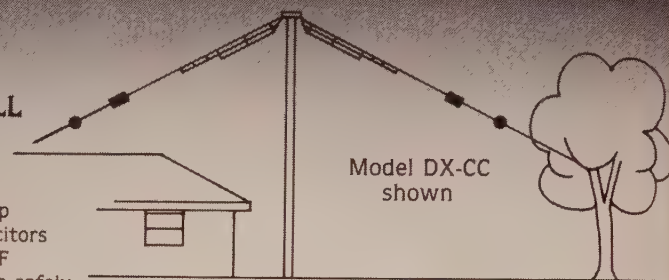
12 chapters - 256 pages with special Novice enhancement update. Expanded text and two new code instruction cassettes. Includes examination procedures, new questions and details of the new beginners's (Novice) privileges. Contains material needed to pass Novice exam explained in simplest terms possible. Information on how to select equipment and set up a station and step-by-step guidance through the first contact.

Tune-in-the World w/cassettes . . \$15⁰⁰

Tune-in-the World - book only . . 12⁰⁰

Alpha Delta Limited Space High Performance Antennas...

THE SOLUTION TO
160-80-40 METER
OPERATION IN SMALL
AREAS!



Model DX-CC shown

- No-trap design. Unlike trap antennas, there are no capacitors to break down under high RF voltages, and a tuner may be safely used for multi-band operation if desired.

- Direct 50 ohm feed. Tuners usually not required when operating in resonant bands.

- Full power operation.
- Uses "ISO-RES" inductors.
- Stainless steel hardware.
- Fully assembled.

Model DX-A 160-80-40 Meter Quarter Wave Twin Sloper —

- The premier low frequency DX antenna.
- Combines the tremendous DX firepower of the quarter wave sloper with the wide bandwidth of the half wave dipole.

- One leg is 67', the other 55'. Installs like an inverted-V. Ground return through tower or down-lead \$49.95 each

Model DX-CC "No-Trap" 80-40-20-15-10 Meter Dipole —

- Can be used as inverted-V.

- Only 82' overall length \$89.95 each

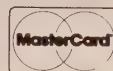
Model DX-DD "No-Trap" 80-40 Meter Dipole —

- Can be used as inverted-V.

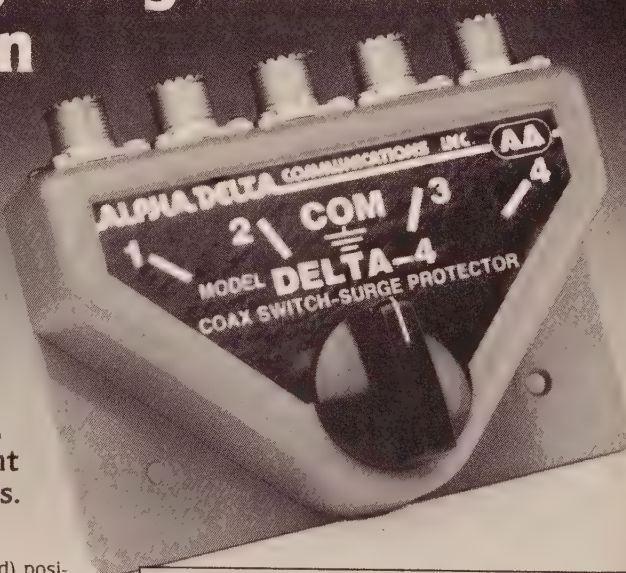
- Only 82' overall length \$69.95 each

Model DX-KT 160 Meter Add-on Kit for DX-CC or DX-DD —

- Adds a total of 20' to overall length of dipoles \$29.95 each



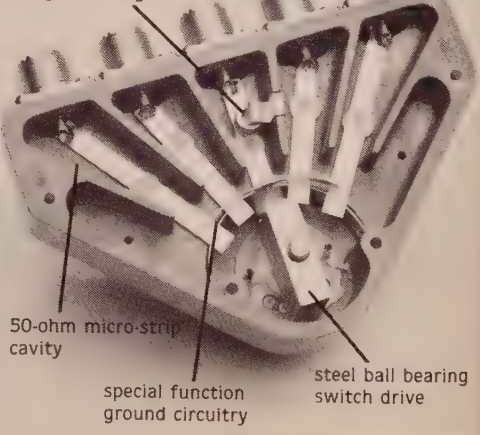
Alpha Delta Model DELTA-4 Lightning Surge Protected 4-Position RF Coax Switch



Superior
RF switching
and equipment
protection for amateur,
military and government
communications stations.

- Exclusive center "off" (ground) position internally disconnects and grounds all antenna circuits for maximum protection when operator is away from the station — an Alpha Delta first!
- Incorporates the famous replaceable Arc-Plug® cartridge for continuous protection of the active antenna circuit. Unused antenna circuits are automatically grounded — an Alpha Delta first!
- The Model DELTA-4 Switch features a custom designed cast housing with constant impedance micro-strip cavity construction for outstanding performance through UHF. No lossy wafer switches are used.
- Positive detent ball bearing switch drive tells you which position you're in . . . without guessing . . . without looking.
- DELTA-4 handles full legal power.
- Designed and produced in the U.S.A. by Alpha Delta.

ceramic gas tube Arc-Plug® cartridge



50-ohm micro-strip cavity

special function ground circuitry

steel ball bearing switch drive

Model DELTA-4 (UHF connectors, 500 MHz) \$69.95

Model DELTA-4/N (N-type connectors, 1.3 GHz) \$89.95

KLM



KLM KT-34A 3-Element Trapless 10-15-20m Beam

Bandwidth.... 14-14.35 MHz Forward Gain ..(20m) 7.0 dBd
21-21.5 MHz (15m) 7.0 dBd
28-29.0 MHz (10m) 7.0 dBd
F-B/F-S ratio 20dB/40dB Wind load area 6 sq. ft.
Power 2000 Watts PEP Weight (UPS O.K.).... 45 lbs.
Boom length/dia 16' x 3" Mast diameter..... 2" O.D.
Element length..... 24 ft. 4:1 4KW Balun included
Turning radius..... 16 ft. **Sale Price..... \$439⁹⁵**

KLT-34XA 4-Element Trapless 10-15-20m Beam

Bandwidth.... 14-14.35 MHz Fwd. Gain (20m) 8.5-9 dBd
21-21.5 MHz (15m) 9-9.5 dBd
28-29.0 MHz (10m) 11-11.3 dBd
F-B/F-S ratio ... 20 dB/30dB Wind load area..... 9 sq. ft.
Power 2000 Watts PEP Weight (Truck only).... 75 lbs.
Boom length/dia 32' x 3" Mast diameter..... 2" O.D.
Element length..... 24 ft. 4:1 4KW Balun included
Turning radius..... 21.5 ft. **Sale Price \$629⁹⁵**

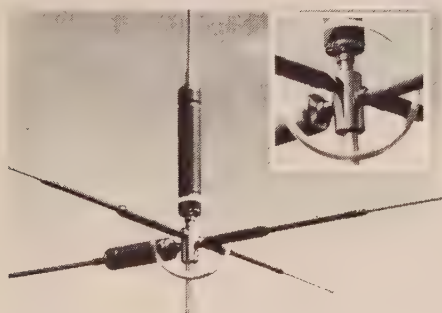
Mirage/KLM 1.2-44LBX 1.2 GHz, 44 element Yagi

Factory Tested • Completely Assembled

Utilizes the latest in ultra-high gain, low sidelobe design. The parasitic elements are pseudo-log tapered in length and spacing to produce wide usable bandwidth and low VSWR without tuning.

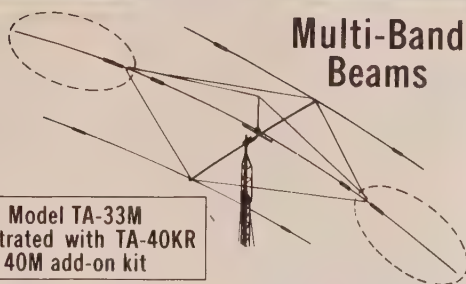
Gain 18.2 dB Element Length..... 4.5"
Bandwidth... 1260-1300 MHz Mast..... 2" O.D.
Feed Impedance.... 50 Ohms Wind load 1 sq. ft.
VSWR.... Better than 1:5 to 1 Balun..... 4:1 Rigid Coax
Boom Length 12' 4" Price \$142⁹⁵

See KLM in Price List for complete listing of other KLM antennas and accessories for HF, VHF and UHF.



X-PANDA-FIVE Resonator adaptor for HUSTLER or similar mobile antenna systems. Allows the addition of up to four more resonators to the mast multi-band operation. Band switching is automatic without having to change resonators **\$14⁹⁵**

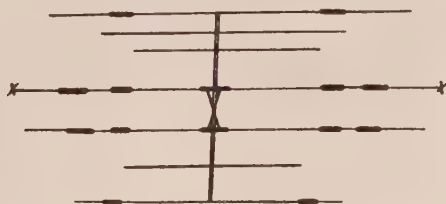
MOSLEY



Model TA-33M
Illustrated with TA-40KR
40M add-on kit

MODEL	TA-31	TA-33M	TA-33JrM	CL-33M
Elements	1	3	3	3
Gain	0 dBd	8.1 dBd	8 dBd	8.4 dBd
F/B ratio	0 dB	25 dB	25 dB	25 dB
Power, SSB	2.5 KW	2.5 KW	1.2 KW	2.5 KW
Power, AM/CW	1.25 KW	1.25 KW	.5 KW	1.25 KW
Boom length	22' 6" el.	14'	12'	18'
Resonance SWR	1.5:1	1.5:1	1.5:1	1.5:1
Turning radius	11' 4"	15' 6"	14' 9"	18' 6"
Mast size	1 1/2"	1 1/2" / 2"	1 1/2"	2"
Wind area	2.0 sq. ft.	5.7 sq. ft.	4.3 sq. ft.	6 sq. ft.
Load @ 80 MPH	30 lbs.	114 lbs.	86 lbs.	120 lbs.
Weight	9 lbs.	37 lbs.	20 lbs.	45 lbs.
AES® Price	\$99⁹⁵	\$289⁹⁵	\$229⁹⁵	\$329⁹⁵

TA-30KR 10 MHz add-on kit for TA-33M **\$109⁹⁵**
TA-40KR 40 meter add-on kit for TA-33M **109⁹⁵**



New! PRO-57/67 Broadband Beam Antennas

Seven elements on a 24 foot boom with a unique direct-feed system which enables the two driven elements to contribute gain to the system while giving the broadest possible frequency coverage. Not counting the extra driven element, there are 3 wide-spaced elements on 20 and 15 meters, 4 wide-spaced elements on 10 meters, and 3 elements on 12 and 17 meters. When the 40 meter kit is added to the PRO-57, you have a close-spaced phased 2 element beam and the antenna becomes the PRO-67. Clean design, easy to assemble - typically 2 1/2 to 4 hours. All stainless steel hardware, 2-Year MOSLEY Warranty.

Fwd. Gain ... (10m) 10.9 dBd Max. Element length.. 29.9 ft.
(12m) 6.0 dBd *(40m) 42.7 ft.
(15m) 8.9 dBd Turning radius 19.8 ft.
(20m) 8.5 dBd Wind load area 12.0 sq. ft.
*(40m) 3.5 dBd *(40m) 12.9 sq. ft.
Front to back ratio .. 25+ dBd Assem. wt (Truck) 81 lbs.
*(40m) 12 dB *(40) 86 lbs.
Power 2.5 KW DC Mast diameter..... 2" O.D.
Boom length..... 24 ft. See MOSLEY in Price List

* When 40 meter elements are added

CUSHCRAFT

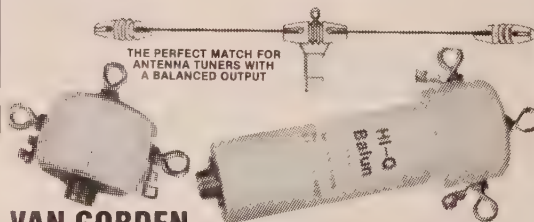


A-3 3 ELEMENT 10-15-20M BEAM

Bandwidth (Avg.) ... 500 KHz Forward Gain 8.0 dBd
F-B ratio (Avg.) 25dB Wind load area 4.36 sq. ft.
Power Rating 2 KW PEP Weight (UPS O.K.).... 27 lbs.
Boom length/dia 14' x 1 1/2" Mast diameter.. 1 1/4 to 2" O.D.
Longest Element 27 3/4 ft. No Balun required
Turning radius..... 15 1/2 ft. **Sale Price..... \$219⁹⁵**

A-4 4 ELEMENT 10-15-20M BEAM

Bandwidth (Avg.) ... 500 KHz Forward Gain 8.9 dBd
F-B ratio (Avg.) 25dB Wind load area 5.5 sq. ft.
Power Rating 2 KW PEP Weight (UPS O.K.).... 37 lbs.
Boom length/dia 18' x 2" Mast diameter.. 1 1/4 to 2" O.D.
Longest Element 32 ft. No Balun required
Turning radius..... 18 1/2 ft. **Sale Price..... \$299⁹⁵**



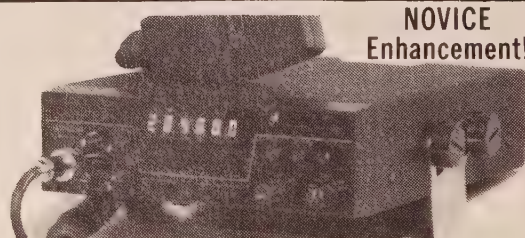
VAN GORDEN

All Bander Dipole Covers 160 to 10 meters when used with an antenna tuner capable of tuning balanced line. Full 135 ft. long flat top with 100 ft. of PVC coated 450 ohm balanced line and insulators. Assembled, ready to install **\$29⁹⁵**

HI-Q Antenna Center Insulator Strong, lightweight and weatherproof, eye hook for support. SO-239 connector..... **\$6⁹⁵**

HI-Q 1:1 Balun For dipoles, yagis, quads, inverted Vees. Improves radiation pattern. For 3-40 MHz, handles legal limit. Weatherproofed, support hook, SO-239 connector..... **\$14⁹⁵**

See Price List for other VAN GORDEN products



NOVICE Enhancement!

CLEAR CHANNEL AR-3500 10-Meter SSB/CW/AM/FM Transceiver. Covers 28.0-29.9999 MHz. Two models: 30W (25W SSB, 30W CW and 8W AM/FM) or 100W (120W SSB, 150W CW and 30W AM/FM). Five memories, scanning, split-frequency operation, noise blanker. Frequency selection by momentary switches or automatic scanning; selectable in 100Hz, 1,000Hz, 10,000Hz, and 100,000Hz increments, +500Hz clarifier control. Microphone and mobile mount included. Requires 13.6VDC @ 7A.
30W model: **\$349⁹⁵** • 100W model: **\$449⁹⁵**

Order Toll Free: 1-800-558-0411 In Wisconsin (outside Milwaukee Metro Area) **1-800-242-5195**

AMATEUR ELECTRONIC SUPPLY® Inc.

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AES® BRANCH STORES

Associate Store

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Ohio WATS 1-800-362-0290
Outside Ohio 1-800-321-3594

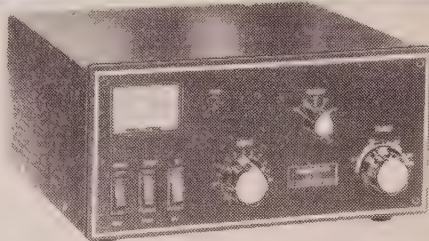
ORLANDO, Fla. 32803
621 Commonwealth Ave.
Phone (305) 894-3238
Fla. WATS 1-800-432-9424
Outside Florida 1-800-327-1917

CLEARWATER, Fla. 34625
1898 Drew Street
Phone (813) 461-4267
No In-State WATS
No Nationwide WATS

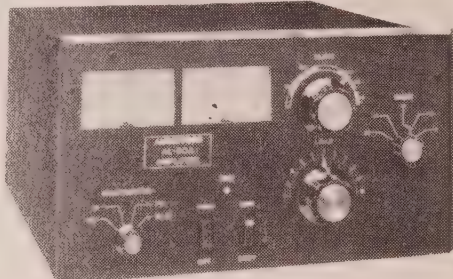
LAS VEGAS, Nev. 89106
1072 N. Rancho Drive
Phone (702) 647-3114
No In-State WATS
Outside Nevada 1-800-634-6227

CHICAGO, Illinois 60630
ERICKSON COMMUNICATIONS
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Phone (312) 631-5181
15 min. from O'Hare!

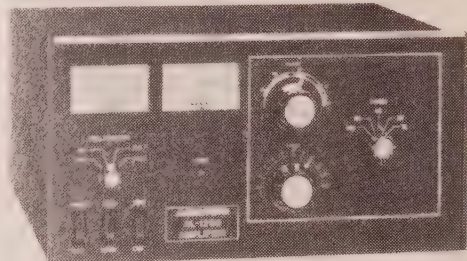
HF • VHF/UHF RF POWER AMPLIFIERS



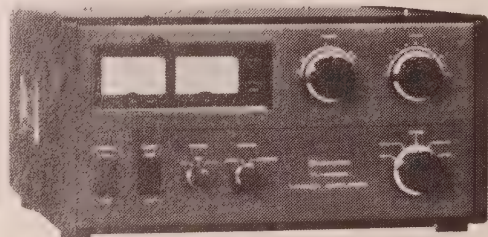
AMERITRON AL-84 Covers 1.8 to 21.5 MHz amateur bands + MARS. (4) 6MJ6s, 600W PEP SSB, 400W CW, 70 watts drive. Passive low SWR input. Compact! 5" h x 11" w x 10" d... **\$429⁹⁵**



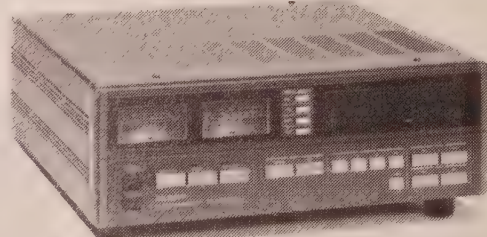
AMERITRON AL-80A Covers 1.8 to 21.5 MHz amateur bands + MARS. Single 3-500Z, 1000W PEP SSB, 850W CW/RTTY/SSTV, 85W drive. Tuned input. 14" w x 8" h x 15 1/2" d, 52 lbs... **\$829⁹⁵**



AMERITRON AL-1200 Covers 1.8 to 21.5 MHz amateur bands. Single Eimac 3CX-1200A7, rated 1500W output - all modes, 90W drive. Heavy-duty silver-plated tank components, grid and current/peak-reading output meters, built-in power supply with hypersil transformer. 18 1/2" d x 17 1/4" w x 10 1/2" h, 77 lbs.. **\$1599**
AL-1500 Single Eimac 8877, rated 1500W output.... **\$2089**



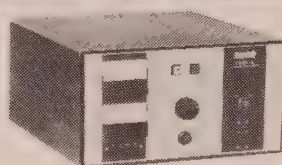
KENWOOD TL-922A Covers 160 to 15 meters. Two EIMAC 3-500Z tubes; 2KW PEP SSB, 1KW DC CW/RTTY input with 80W drive. Built-in power supply, fan, adjustable ALC. 15 1/2" w x 7 1/2" h x 16 1/2" d, 68 lbs. Matches KENWOOD transceivers.... **\$1389**
Air Freight Shipment only



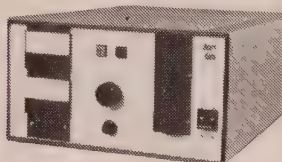
YAESU FL-7000 Solid-state, fully protected push-pull parallel wide band "no-tune" amplifier with automatic antenna tuner and built-in power supply. Covers 160-15M, 1200W PEP input with 70W drive. Full CW break-in (QSK) for CW, HF packet and AMTOR. Automatic band change with FT-767GX, FT-757GX or FT-980. Antenna tuner automatically turns off amplifier and attempts rematch if SWR exceeds 2:1. Memory holds antenna selection/tuner settings. Connections for up to 4 antennas, auto select with optional unit. 5" h x 15" w x 15" d, 66 lbs.. **\$1589⁰⁰**



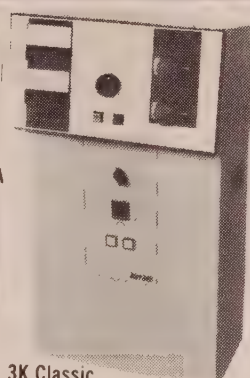
USE
YOUR
CREDIT
CARD



2002A/2004A



2KD Classic



2K, 3K Classic

HENRY 2KD Classic Desk top model. 80-15 meters, (2) EIMAC 3-500Z tubes in final. 80-150 Watts drive, 2000 Watts PEP input. 10 1/2" h x 15" w x 17 1/2" d, 62 lbs **\$1169**

HENRY 2K Classic Console model, 80-15m, (2) EIMAC 3-500Z's, 80-150w drive, 2000w PEP input. Maximum legal input -all modes. 32 3/4" h x 16 1/2" w x 15" d, 125 lbs..... **\$1259**

HENRY 3K Classic Mk II Floor model, 80-15m, EIMAC 3CX1200A7, 60-100w drive, 2000w PEP input. Maximum legal input - all modes. 32 3/4" h x 15" w x 16 1/2" d, 190 lbs **\$2249**

HENRY 2002A 144-148 MHz desk top linear. 2KW PEP in (1KW out), (1) 3CX800A7. 9 1/2" h x 17 1/4" w x 19 3/4" d, 70 lbs.... **\$1295**

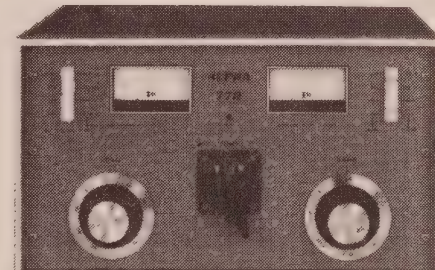
2002A-220 220 MHz version **1295**
2004A 430-450 MHz version **1395**

2KD, 3K Classics and 2002A, 2004A - Air Freight only.

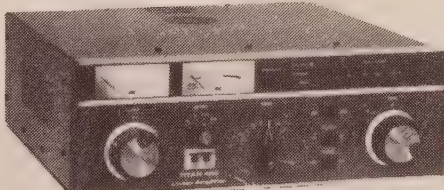


ETO ALPHA 78 No-tune-up on 160-15M bands and full coverage manual tuning in the 1.8-2.0 and 3-22 MHz ranges. Three EIMAC 8874 tubes; 2.5KW PEP SSB, 1KW CW input with 60-80W drive. QSK, 2.4KVA Hypersil® xfmr. 7 1/2" h x 17" w x 14 3/4" d, 62 lbs..... **\$2895**

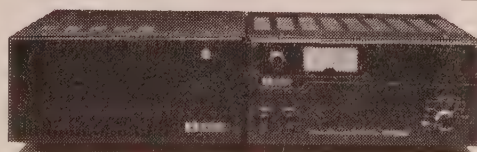
ETO ALPHA 76PA Manual tuning version **1995**



ETO ALPHA 77DX Covers 160-15M + 1.8-2.0 and 3-22 MHz. 3KW PEP SSB or CW - No Time Limit! Single EIMAC 8877, 100W drive for 2 KW input. Vacuum relay QSK-T/R system, 4+ KVA Hipersil® transformer, silver plated tank coil, vacuum variable plate tuning capacitor. 11" h x 19 1/2" w x 22" d, 103 lbs.. **\$4895**



TEN-TEC 425 TITAN Covers 160-15M. Uses two EIMAC 3CX-800A7 finals; full legal 1.5 KW PEP SSB output with 100W drive. Full CW break-in (QSK), Hipersil transformer, LED status/peak power indicators, adjustable ALC. Separate 5 1/4" h x 15 1/4" w x 15" d RF deck and power supply. Total wt.- 62 lbs... **\$2299⁰⁰**



ICOM IC-2KL Solid state, broadbanded - no-tune-up. Covers 160-15M, 500W PEP SSB, 500W CW output with 50-80W drive. Separate RF deck and power supply. Both units 4 1/4" h x 9 1/2" h x 15 1/2" d, total wt - 45 lbs. Matches ICOM transceivers.. **\$1699**

RF CONCEPTS 2m/220 MHz Power Amplifiers



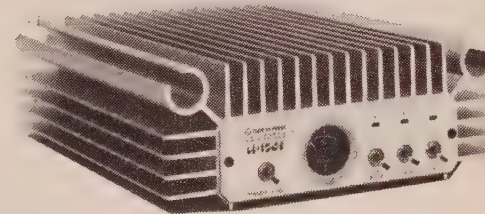
- 13.8 VDC
- FM/CW/SSB
- GaAs FET Receive Preamp
- Overdrive Protection
- 5 Year Factory Warranty (6 Months on RF Transistors)

-meters

23 0.2-5W input. 2W in/30W out, 4 Amps..... **\$104⁹⁵**
2-317 0.2-30W input. 30W in/170W out, 22 Amps **239⁹⁵**
2-417 0.2-50W input. 45W in/170W out, 22 Amps **239⁹⁵**

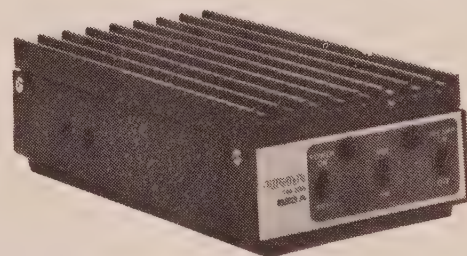
220 MHz

3-22 0.2-5W input. 2W in/20W out, 4 Amps..... **\$104⁹⁵**
3-211 0.2-5W input. 2W in/110W out, 22 Amps **269⁹⁵**
3-112 0.2-15W input. 10W in/120W out, 22 Amps **269⁹⁵**



TOKYO High Power Labs VHF/UHF Amps

Model	Band	Input	Output	SSB	Pre-Amp	Meter	Price
HL-30V	2m	0.25-5w	2.5-30w	No	No	No	\$ 74 ⁹⁵
HL-37V	2m	3w	30w	yes	yes	LED	94 ⁹⁵
HL-85V	2m	10-14w	70-90w	Yes	GaAs-FET	Yes	189 ⁹⁵
HL-110V	2m	3-14w	90-110w	Yes	GaAs-FET	Yes	269 ⁹⁵
HL-160V	2m	3-14w	140-160w	Yes	MOS-FET	Yes	299 ⁹⁵
HL-160V25	2m	20-30w	140-160w	Yes	MOS-FET	Yes	299 ⁹⁵
HL-250V25	2m	25w	250w	yes	yes	yes	419 ⁹⁵
HL-30U	70cm	1-4w	25-30w	No	GaAs-FET	LED	174 ⁹⁵
HL-60U	70cm	8-14w	45-60w	Yes	GaAs-FET	Yes	209 ⁹⁵
HL-120U	70cm	8-14w	90-110	Yes	GaAs-FET	Yes	389 ⁹⁵



MIRAGE VHF/UHF Power Amplifiers

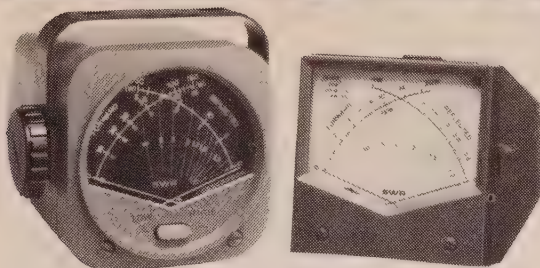
All mode capability - AM, FM or SSB. Operate directly off of 12VDC for mobile operation, or use in base station with suitable power supply. Built-in automatic antenna relay with adjustable delay. Some have built-in 10db gain/2.5db N.F. receive preamplifier to aid weak signal reception. **5-year Warranty** (1 year on RF Power Transistors). Optional remote control head.

Model	Band	(w) in	out*	amps	preamp	Regular	SALE
A-1015	50-52	.5-15	150	25	yes	\$306.00	\$279⁹⁵
B-23S	144-148	.1-5	30	5	no	104.00	96⁹⁵
B-23A	144-148	.1-5	30	5	yes	137.00	124⁹⁵
B-215	144-148	.1-2	150	20	yes	305.00	259⁹⁵
B-108	144-148	.5-15	80	12	yes	189.00	169⁹⁵
B-1016	144-148	.5-10	160	25	yes	305.00	259⁹⁵
B-3016	144-148	15-45	160	25	yes	247.00	224⁹⁵
C-22A	220-225	.5-5	20	5	yes	137.00	124⁹⁵
C-211	220-225	2	110	20	yes	315.00	279⁹⁵
C-106	220-225	.5-15	60	12	yes	210.00	189⁹⁵
C-1012	220-225	10	120	20	yes	315.00	279⁹⁵
C-3012	220-225	30	120	20	yes	260.00	239⁹⁵
D-15N	420-450	1-2	18	5	no	169.00	159⁹⁵
D-24	430-450	.3-4	40	15	no	230.00	209⁹⁵
D-24N	430-450	.3-4	40	15	no	230.00	209⁹⁵
D-1010	430-450	.3-15	100	20	no	338.00	299⁹⁵
D-1010N	430-450	.3-15	100	20	no	338.00	299⁹⁵
D-3010	430-450	15-30	100	20	no	312.00	289⁹⁵
D-3010N	430-450	15-30	100	20	no	312.00	289⁹⁵

(N) with Type-N connectors *Output at maximum drive

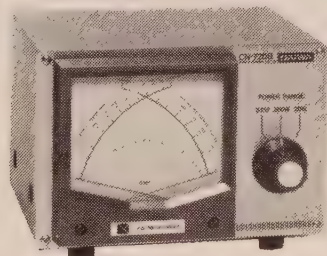
Repeater amplifiers available on Special Order - See Price List

DAIWA - Meters • Tuners • Accessories

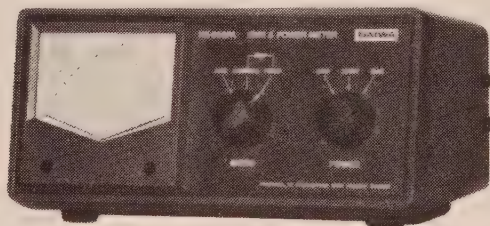


DAIWA CN-520 (right) Small SWR/POWER meter. Compact and portable, but very accurate. Features Daiwa's famous Cross-Needle meter. Simultaneously, one scale indicates forward power, the another - reflected power. The point where the two needles come together shows SWR. Frequency: 1.8 to 60 MHz, Power Range 200/2KW, In/Out: SO-239. 2 7/8" h x 3 3/4" d. **\$69⁹⁵**

(left) Mobile-type SWR/power meters with illuminated meter and mtg. hardware. Cross-Needle, 2 7/8" w x 3" h x 4" d, Requires 12VDC.
CN-410M 3.5 to 150 MHz; 15/150W, 5/50W..... **\$69⁹⁵**
CN-460M 140 to 450 MHz; 15/150W, 5/50W **74⁹⁵**
CN-465M 140 to 450 MHz; 15/75W, 5/25W **74⁹⁵**

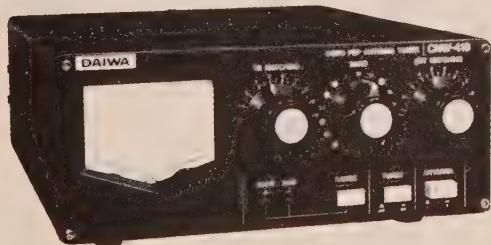


CN-720B Cross-needle SWR/Power Meter. Simultaneous, direct reading of SWR and Forward/Reflected power from 1.8 to 150 MHz. Three power ranges - 20/200/1000W Forward and 4/40/200W Reflected. Requires only 5W for SWR detection. SO-239 connectors. 7" w x 4 3/4" h x 5" d. **\$149⁹⁵**

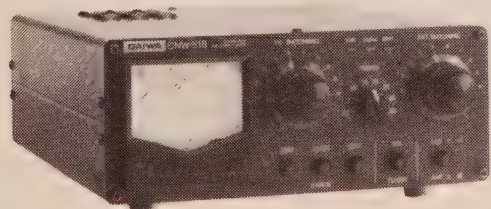


NS-Series SWR/Power Meters. Cross-Needle, simultaneous, direct reading of SWR, Forward and Reflected power. Face angled 15° for easy reading, remote sensor capability.

NS-660A 1.8-150 MHz, 30/300/3KW, SO-239..... **\$136⁹⁵**
NS-660PA 1.8-150 MHz, 30/300/3KW, PEP, SO-239 .. **156⁹⁵**
NS-663A 140-525 MHz, 30/300/3KW, SO-239 **152⁹⁵**
NS-663AN 140-525 MHz, 300W, Type-N **179⁹⁵**

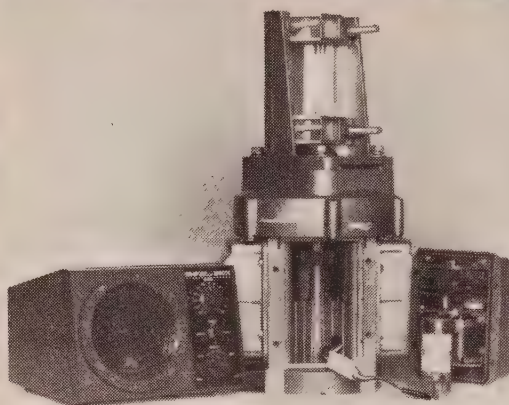


CNW-419 Antenna Tuner. Continuous tuning coverage from 1.8 to 30 MHz divided into 17 bands. 50 ohms input, 10-250 ohms unbalanced output, handles 500W PEP. Cross-needle SWR and Power metering. 8 7/8" w x 3 1/2" h x 9 1/2" d. **\$189⁹⁵**



CNW-518 8-band Antenna Tuner. Covers 3.5 to 30 MHz 2.5KW PEP SSB, 1KW CW @ 50% duty, 500w AM, RTTY/SSTV. 50 ohms in, 15-250 ohms output unbalanced. Cross-Needle, simultaneous Power and VSWR metering. 8 7/8" w x 3 1/2" h x 10 3/4" d. **\$299⁹⁵**

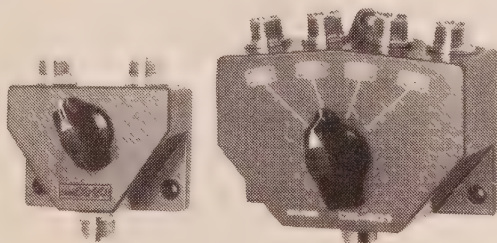
CL-680 (not shown) Antenna Tuner, no meter. Continuous coverage from 1.8-30 MHz in 17 bands. 50 ohms input, 10-250 ohms unbalanced output, 500W PEP. 8 7/8" w x 3 1/2" h x 9 1/2" d. **\$119⁹⁵**



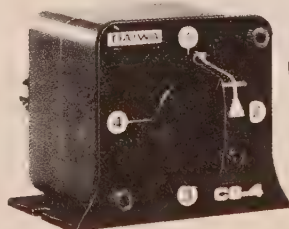
DAIWA MR-750 and MR-300 Advanced Multi-Torque Antenna Rotors. Rotor frame accepts installation of 1 to 4 motors to increase torque and load capacity as needed. Each motor is equipped with a Super Wedge and Clutch brake system that works independently from the main frame gear train to protect the rotator mechanism from excessive torque. Controller unit has large compass-type indicator dial. Model CR-4 is Manual, CR-4P is Pre-set and Manual. Low voltage (24V) motors allow use of regular 8-wire control cable such as Belden 8448 or 9405.

Model & Specs	MR-750	MR-300
Rotation time	58 seconds	33 seconds
Torque - 1 motor	610 lbs-inch	220 lbs-in
2 motor	1200 lbs/inch	440 lbs/inch
3 motor	1800 lbs/inch	650 lbs/inch
4 motor	2400 lbs/inch	870 lbs/inch
Braking - 1 motor	5200 lbs/inch	1700 lbs/inch
2 motor	9600 lbs/inch	3500 lbs/inch
3 motor	13,900 lbs/inch	5200 lbs/inch
4 motor	18,300 lbs/inch	7000 lbs/inch
Rotation	375 degrees	375 degrees
Mast size	1 1/2" - 2 1/2"	1 1/2" - 2 1/2"
Continuous run	5 minutes max.	5 minutes max.
Unit weight	16.5 lbs (1 motor)	16.5 lbs (1 motor)

MR-750E One motor unit with CR-4 controller..... **\$269⁹⁵**
MR-750PE One motor unit with CR-4P controller **319⁹⁵**
MR-300E High Speed rotator with CR-4 controller **269⁹⁵**
MR-750U Additional motor unit for MR-750 **99⁹⁵**
MR-300U Additional motor unit for MR-300 **99⁹⁵**
MS-1 Lower mast bracket..... **28⁵⁰**



CS-201 Two-position Coaxial Switch. High quality, heavy cavity-type construction for low loss, accurate 50 ohm impedance match and high isolation up to 600 MHz. Power Rating: 2.5KW PEP, 1KW CW; VSWR: 1.2; Loss: less than .2 dB; Isolation: better than 50 dB @ 300 MHz/45 dB @ 450 MHz. Unused terminals automatically grounded for lightning/static protection .. **\$240⁰⁰**
CS-201G 2 pos, good to 1.2 GHz, N-type connectors **42⁹⁵**
CS-401 Same as CS-201 above, but 4 positions **71⁹⁵**
CS-401G 4 pos, good to 1.2 GHz, N-type connectors..... **89⁹⁵**



CS-4 Four position coaxial switch with BNC connectors. Good to 1500 MHz, handles 500 Watts SSB or 250 Watts CW. 60dB isolation... **\$40⁰⁰**

UNADILLA

W2AU/W2VS 5-Band Antenna Kit - \$65.00

Low SWR on 80 & 40M
Resonant on 10, 15, & 20.

Kit contains:

1 pr. KW-40 traps
1 ea. W2AU 1:1 balun
1 pr. End Insulators
120' #14-7 copper wire

W2VS "Old Reliable" Antenna Traps.

Add these traps to your dipole for multiband operation on 2 to 6 bands. For example: add the KW-40 pair and get 40 and 80 meters. For 10, 15, 20, 40, 80 and 160 meters, add all 5 pairs. 33 combinations.

Selecting Traps.

List the bands you will work, listing the highest frequency band first. You will need a pair of traps for each one except the lowest frequency band. **KW-10** for 10M; **KW-15** - 15M; **KW-20** - 20M; **KW-40** - 40M; **KW-80** - 80M See UNADILLA in Price List.

W2AU Ferrite Baluns

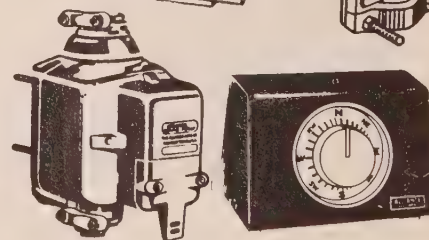
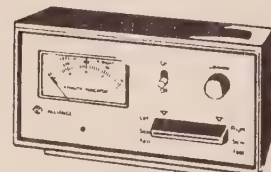
Provide a smooth transition from unbalanced coaxial line to balanced antenna. Results in proper current distribution for maximum gain and less TVI by reducing feedline radiation. Also provides lightning protection. For dipoles, quads and yagis from 3 to 40 MHz. Rated 2KW PEP. Specify 1:1 or 4:1 ratio. **\$17⁹⁵**

W2DU Non-Ferrite Baluns

HF 1.8-30 MHz, 1:1 **\$19⁹⁵**
VHF 30-300 MHz, 1:1 **19⁹⁵**

ALLIANCE Rotors

HD-73 For antennas with up to 10.7 sq. ft. of surface area. Hard, heavy pitch steel gears, 100 ball bearings. Mounts in-tower, on tower; or masts 1 1/2" to 2 1/2" O.D. Automatic brake system. Dual Speed, 1 RPM or s-l-o-w for peaking. Big 3 1/2" lighted meter, calibrated S-W-N-E-S in 10° increments. Requires 8-wire cable **\$109⁹⁵**



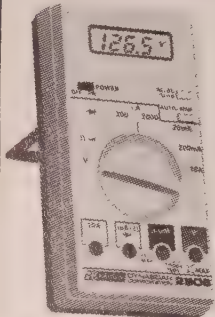
U-110 Light-duty for TV or small Ham antennas with up to 5 sq. ft. of surface area. Feed-thru mast feature, also may be used as an elevation rotor. Automatic control box with positive 'click'. Rotates 1 RPM, lighted dial shows antenna position at all times. Braking system has built-in storm windload safety feature to help prevent drive train damage. Requires 4 wire cable..... **\$49⁹⁵**

KENPRO

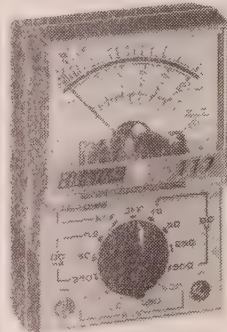


KR-500 Heavy-duty 180° elevation rotor for Satellite and Moonbounce antennas. Handles up to 11 sq. ft. of surface area, accepts masts from 1 1/2" - 2 1/2". Requires 8-wire cable.. **\$189⁹⁵**

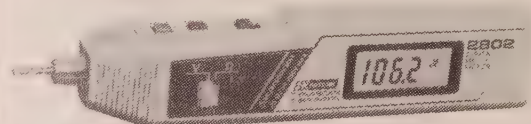
B&K PRECISION DYNASCAN CORPORATION



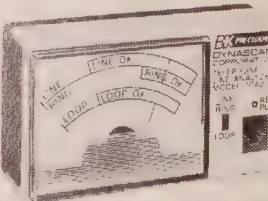
B&K 2806 Digital Multimeter. LCD, 3½-digit display. 10M input, 0.7% accuracy. Manual or Auto-Ranging on ohms and Volts, audible continuity check, diode check, overload protection, low battery indicator. DC: 0-200mv, 2000mv, 20, 200, and 750V. AC: 0-2000mv, 750V. I: 0-200uA, 2000uA, 20mA, 200mA, 10A. Ohms: 0-200, 2k, 20k, 200k, 2000k, 20M. 6" x 3½" x 1½". With test leads, batteries and spare fuse **\$64⁹⁵**



117 Multimeter • **\$11⁰⁰**



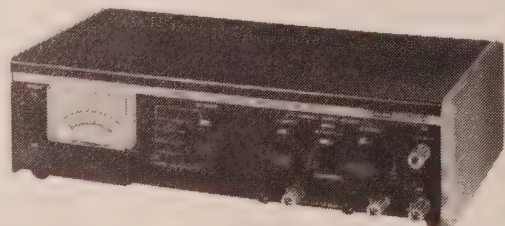
B&K 2802 Probe-type Digital multimeter. LCD, 3½-digits, 0.7% accuracy. Auto-Ranging on all functions, data hold switch, audible continuity check, rugged case with RF/EMI shielding. DC voltage: 200mV, 2000mV, 20V, 200V, and 500V. AC voltage: 2000mV, 20V, 200V, and 500V. RESISTANCE: 200, 2000, 20k, 200k, 2000k and 20M ohms. 6" x 1½" x 2", 2¼ oz. With batteries, two probe tips and test lead w/clip..... **\$49⁹⁵**



B&K 1042 Telephone Line Analyzer. Checks condition of line from central office to your phone jack. Verifies line/ring voltage and polarity... **\$16⁹⁵**



B&K-PRECISION Oscilloscopes: One of the broadest lines of scopes with twelve models ranging from a 5 MHz single-trace unit to an 8-trace 150 MHz lab scope. Useable for design, service, production or hobbyist. Modern, high-performance instruments with such plus extras as expanded range power supplies to maintain specs under varying line voltage conditions. See Price list under B&K for all models available from AES®.



B&K 1650 Tri-output power supply. Functions as three separate supplies with a fixed 5 VDC @ 5A, and two 0-25 VDC @ 0.5A variable outputs. Outputs may be connected in series or parallel for higher voltage or current. Isolated terminals, automatic current limited overload protection, meter reads voltage or current. 3.8" h x 14.1" w x 10" d, 11 lbs **\$384⁹⁵**

See Price List for other B & K products

BIRD Thruline®

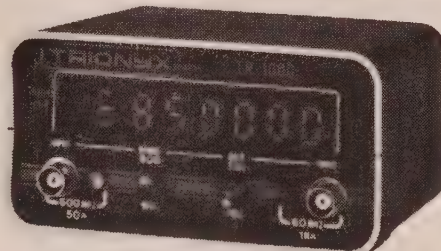
Elements & Connectors (Optional)



CC-1 Case (optional)

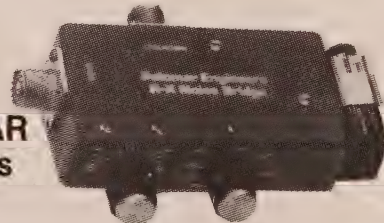
BIRD 43 Thruline® Wattmeter - \$179⁰⁰

Plug-in elements provide a wide choice of frequency range and power levels. Select from 2 to 1000 MHz and 1 to 5000 watts. Highest accuracy, low VSWR and insertion loss. Buy only the elements for your present frequency and power level requirements, then add extra elements as needed. Optional case Quick-Change (QC) connectors and RF sampler..... See Price List.

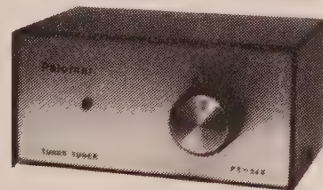


TRIONYX TR-1000 Frequency Counter: Direct and prescaled inputs 10 Hz to 600 MHz. Gate: 1.0 or 0.1 sec; Impedance: 50 ohms or 1 Megohm; Sensitivity: 15mv @ 30 MHz, 25mv @ 150 MHz, 50 mv @ 450 MHz; Resolution: 1-10 Hz to 6 MHz, 10 Hz-10 MHz to 60 MHz, 100 Hz-10 MHz to 600 MHz (prescaled); 0.4" LED digits; auto decimal. Telescoping antenna, AC adaptor and portable Nicad pack. 3¾" h x 5" w x 5½" d, 1½ lbs **\$159⁹⁵**

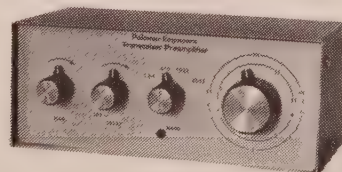
PALOMAR Engineers



RX-100 Noise Bridge. One measurement can tell you if your antenna is resonant and, if not, whether it is too long or too short. Shows Resistance and Reactance values of all types of coaxial fed antennas from 1-100MHz. Simply connect to receiver and feedline, adjust the controls on bridge and interpret readings according to the instruction book. May be used to tune-up transmitters and antenna tuners off-the-air and to adjust resonant frequency of tuned circuits. Requires 9V battery... **\$59⁹⁵**



PT-340 Tuner-Tuner™ Connects between your transceiver and antenna tuner. By listening to the noise output from the Tuner-Tuner in your receiver, and adjusting your tuner for an audible null, you can achieve the lowest possible SWR on the antenna system without having to put a signal on-the-air **\$99⁹⁵**



P-410X/412X Transceiver preamplifier. Tunes 1.8-54MHz in four ranges. Installs in-line between transceiver and antenna. Improves reception with up to 20 dB gain, lower noise figure, and better selectivity and overload capability. Automatic bypass switching on transmit, adjustable delay time. 3" h x 8½" w x 5" d. Model P-410X (115V AC), Model P-412X (12 VDC).... **\$149⁹⁵**

See Price List for other PALOMAR Engineers products

WELZ HF/VHF/UHF Wattmeters

New and compact! • Utilizing WELZ toroidal core base wide band technology, these PEP/POWER/SWR meters provide multi-mode operation in Auto or Fixed applications with extreme accuracy and reliability.



SP-230/430



SP-220/420

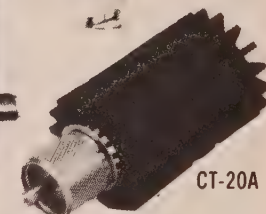
Model	SP-220	SP-420	SP-230	SP-430
MHz	1.8-200	140-525	1.8-150	140-150 420-450
Sensor	Internal	Internal	External	External
Power	2/20/200	4/20/200W	15/150W	5/60W
Peak Pwr	Yes	Yes	No	No
Function	Pwr/VSWR PEP	Pwr/VSWR PEP	Pwr/VSWR CAR VOLTS	Pwr/VSWR CAR VOLTS
Accuracy	7.5% F.S.	10% F.S.	7% F.S.	7% F.S.
PRICE	82 ⁹⁵	89 ⁹⁵	69 ⁹⁵	69 ⁹⁵



SP-10X



TP-05X



CT-20A

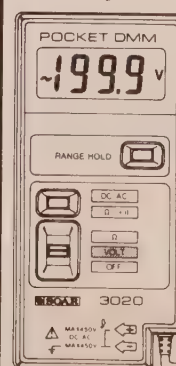
SP-10X: Compact SWR and Power Meter for 1.8 to 150 MHz and up to 200W. Meter reads 20/200W forward/reverse and VSWR. 15% accuracy. Pocket sized, only 2.3" w x 4" h x 1.2" d ... **\$59⁹⁵**

TP-05X: Power meter/dummy load with BNC connector for measuring output power of hand-helds. Covers 50 to 500 MHz, 3W average, 5W peak. 1.6" w x 2.3" h x 1.2" d **\$28⁹⁵**

CT-20A: 50 ohm dummy load for DC to 500 MHz; 15W average, 50W peak. Air cooled - aluminum heat radiator, PL-259 connector for direct connection. 1.35" l x 2.8" d **\$21⁹⁵**

SOAR Pocket Personal Digital Multimeter

Imagine, a shirt pocket size, full function DMM just 3/8" thick and weighing only 3½ oz. Easy to carry around and use. Handy for measuring DC voltages, resistance, and making continuity checks in Home, Car, Boat, at Work, anywhere!.



- AC/DC Volts 2000mV-450V (±1.3%)
- Input resistance 5M ohms
- Resistance 200-2000k ohms
- Continuity Check 200 ohms/beeper
- Display ... 3½ digit LCD, 1999 max.
- Range Auto-ranging
- Sampling 2 times/second
- Polarity selection Automatic
- Low battery Icon display
- Size/wt ... 4¼" h x 2" w x ¾" d 3½ oz.
- Batteries, case, test leads, manual.
- Model 3020 **\$35⁰⁰**

Bencher



High Quality IAMBIC and SINGLE LEVER Keyer Paddles

FEATURES: Full range adjustment of tension and contact spacing, and self adjusting nylon and steel bearings. Heavy Gold plated, solid silver contact points and polished clear lucite paddles. Precision machined chrome plated brass frame, and heavy steel base with non-skid feet. Available with bases in BLACK painted and textured, CHROME or GOLD Plated finishes.

Iambic:

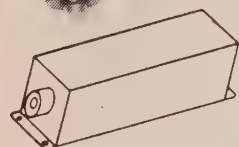
BY-1 (Black) \$54⁹⁵ • BY-2 (Chrome) \$66⁹⁵ • BY-3 (Gold) \$159⁹⁵

Single Paddle:

ST-1 (Black) \$54⁹⁵ • ST-2 (Chrome) \$66⁹⁵ • ST-3 (Gold) \$159⁹⁵

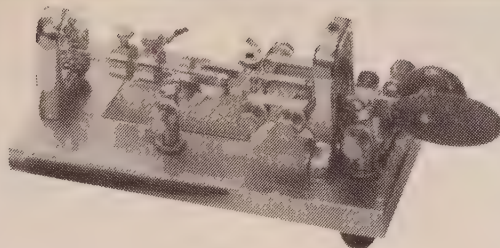
BENCHER ZA-1A 1:1 HF Balun for coaxial fed 3.5-30MHz dipoles, vees, quads and yagis. Converts unbalanced coaxial cable to a balanced feed resulting in reduced feedline radiation and increased efficiency with less possibility of TVI and BCI. Rated at 5KW Peak. No ferrite core so it can accept a substantial mismatch at legal limit allowing use with antenna tuners. DC grounded for lightning protection..... \$29⁹⁵

HWK Hardware kit for 2" boom mount..... 6⁹⁵

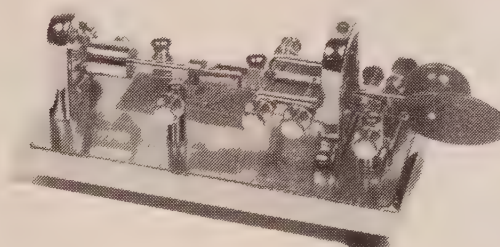


New! BENCHER YA-1 50 ohm low pass filter. For 1.8 to 30MHz operation, handles legal limit \$39⁹⁵

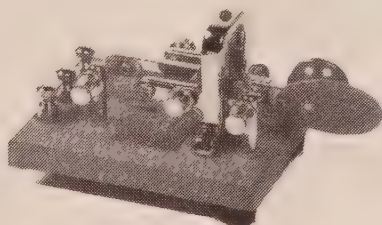
Vibroplex



"Original" Semi-Automatic Key (Bug) Suitable for all transmitting work where speed and perfect code are desired. Press the thumb piece to the right and the vibrating level bar produces one, or a string dots, automatically. Make dashes to the left, manually. A sliding weight adjusts the speed for 20 WPM or less. Silver contacts, non-skid feet. Standard \$61⁹⁵ • Deluxe 74⁹⁵

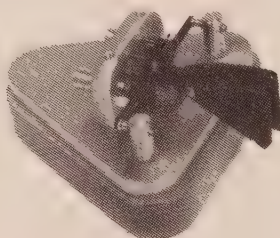


"Presentation" The finest quality semi-automatic key available. Top-of-the line! with real jeweled movement. Widest range of speed, from less than 20 WPM to 55 WPM, and beyond. Beautifully designed and built with bright polished chromium parts and mounted on a 24-carat gold plated base plate..... \$125⁰⁰



VIBROPLEX "Vibrokeyer" Keying mechanism for electronic keyers. Single lever paddle; left/right motion initiates dots & dashes from keyer. IAMBIC model has dual paddles which, in addition to normal keying, allows automatic dot/dash insertion and other features of various keyers. Std. \$54⁹⁵ • Dlx. \$70⁰⁰

Standard Models - Chromium top parts; textured, painted base.
Deluxe Models - Chromium top parts & base; jeweled movement.



VIBROPLEX "Brass Racer Iambic" A distinctive iambic paddle beautifully design crafted from solid brass and mounted on a polished hardwood base..... \$44⁹⁵

VIBROPLEX "Brass Racer EK-1" An electronic keyer built into the base of the Brass Racer iambic paddle described above. Using the Curtis 8044 chip, this self-contained keyer and paddle combination is fully iambic with dot/dash insertion and adjustable speed control. Will key tube-type or solid-state rigs ... \$115⁰⁰

Code Courses for Personal Computers

MFJ Morse Code Tutor Program for C-64/128. Teaches code and allows keyboard to function as a straight or iambic keyer. Transmitter keying with optional interface. Follows the ARRL's "Tune-in-the-World" format. MFJ course also supplied. Sends: Select Random Code, Complete Random Code, Random Messages. Random Message mode sends in plain English similar to VEC test or on the air. Message storage, variable tone, and screen blanking for testing.

MFJ-1266 Disk version - \$19⁹⁵ • **MFJ-1267** Cartridge - \$29⁹⁵
MFJ-76 Transmitter keying interface board - \$19⁹⁵

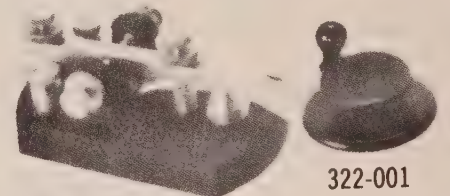
AMECO 107-PC Morse Code Course for IBM PC/XT/AT or 100% compatibles. Menu driven. Generates an infinite amount of random characters at any speed and tone. Generates random QSO's similar to VEC exams, at any speed. Sends any external data file. User changeable inter-element, inter-character and inter-word spacing. Keyboard operates as a straight or iambic keyer. Lessons and quiz sessions. Includes manual & 32-page book code learning .. \$19⁹⁵

Nye Viking



330-001 MASTER KEY

For the expert, but perfect for the beginner. Isolated contact assembly keeps keying circuit separate from base, key arm and exterior metal parts. Heavy die-cast body - base or securing to table not required. Gold-plated silver contacts, adjustable-action key arm, Navy knob, 3' cord/plug. Black painted finish .. \$32⁵⁰



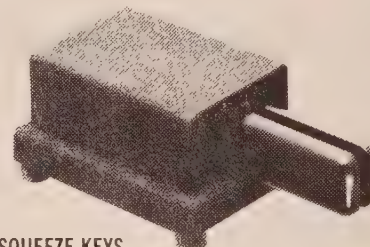
322-001



310-003

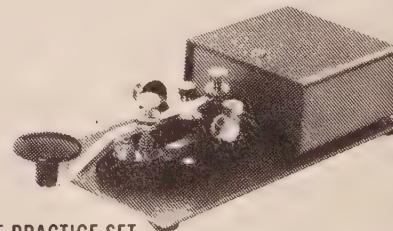
SPEED-X KEYS

5 Standard Models and 6 Heavy-Duty models, all with gold plated heavy silver contacts, adjustable key action and heavy die-cast bases, with or without switches. Brass or nickel-plated hardware, Standard or Navy knobs See NYE VIKING in Price List



SUPER SQUEEZE KEYS

3 models, all with gold-plated heavy silver contacts, knife-edge bearings, nickel-plated brass hardware and heavy die-cast base with non-skid feet. Black or chrome-plated base and dust cover. See NYE VIKING in Price List



CODE PRACTICE SET

Standard key (optional), oscillator, and amplifier with built-in 2" speaker. Mounted on aluminum base with non-skid feet. Two or more can be connected in parallel for sending and receiving practice. Requires 9V battery... See NYE VIKING in Price List

NYE VIKING

ESK-001 Iambic Keyer
Speed: 5-50 wpm. Latest CMOS integrated circuitry Requires key/ paddles and 9V battery \$64⁹⁵



SSK-2-K Iambic Keyer (not shown) Combines the Super Squeeze Key, CMOS circuitry, an oscillator and speaker. Tune-up switch and slow speed hand keying with dash paddle, also simulates semi-auto bug keying. Speed: 5 to 50 wpm. Internal Nicad battery and charger. 4 3/4" w x 2 3/8" h x 7" d, 3 1/4 lbs. \$116⁹⁵

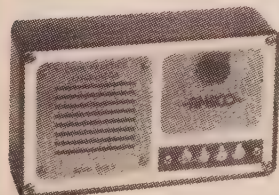
See Price List for entire NYE VIKING line



USE
YOUR
CREDIT
CARD



AMECO Code Practice Oscillator & Monitor



OCM-2 Latest IC circuitry for high quality sound. Large 3" speaker, volume and tone (pitch) controls, headphone output, key input. Easily converts into a transmitter CW monitor. Requires code key and 9V battery .. Kit \$17⁵⁰ • Wired \$22⁹⁵

See AMECO in Price List for Code Courses, License Guides, Preamplifiers and Multimeters.

TELEX® *hy-gain* Antenna Rotators

HDR-300

This rotator is capable of handling king-sized antenna arrays of up to 25 sq. ft. (2.3 m²) wind load area.

- Thickwall Castings—handles largest loads
- Sleeve Bearings—permanently lubricated
- Superior, heavy duty steel clamps, self centering
- Solenoid Operated Locking Brake—securely locks antenna in place
- Digital Directional Indicator—accurate to 1°
- Separate Brake and Rotation Controls—provides longer rotator life
- Low Voltage Control—safe operation
- Maximum mast size 3" (76 mm)

ORDER NO. 300

(120/220 Vac 50/60 Hz)
Shipping Wt: 55 lbs. (25.0 kg)
UPS Shippable



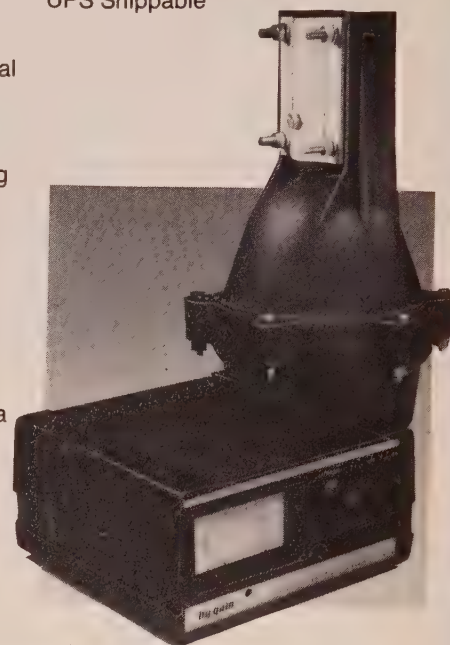
T²X Tailtwister

The world famous Tailtwister is capable of handling antennas with wind load areas of 20 sq. ft. (1.9 m²).

- Thickwall Castings—handles large loads
- 138 Ball Bearings—large load capacity
- Triple Bearing Race—exceptional lateral control
- Six-Bolt Assembly—superior strength
- Machined Steel Ring Gear—long life with maximum load
- Machined Steel Drive Gear System—time tested durability
- Electric Locking Wedge—securely locks antenna in place
- North or South Center Scale—marked on both sides of plate.
- Illuminated Directional Indicator—easily locates antenna
- Snap-Action Control Switches—lifetime operation
- L.E.D. Control Indicators—positive operational signals
- Zener Regulated Meter Circuit—accurate positional readout
- Low Voltage Control—safe operation
- Maximum mast size 2-1/16" (52 mm)

ORDER NO. 303

(120 Vac 60 Hz)
Shipping Wt. 28 lbs. (12.7 kg)
UPS Shippable



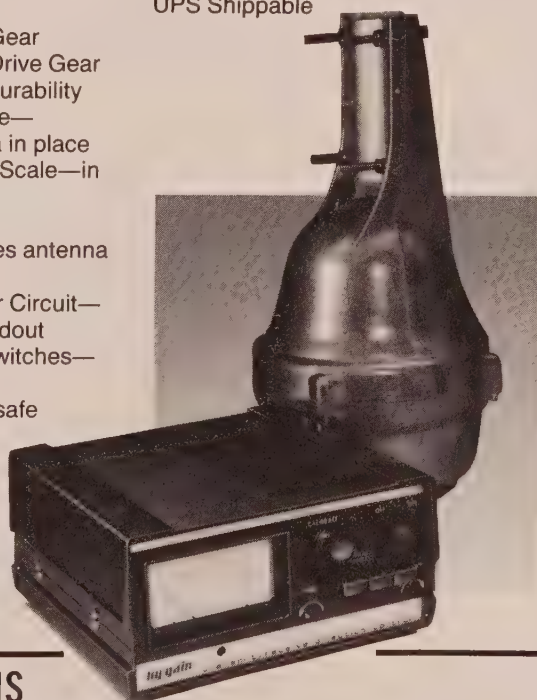
HAM IV

Designed for medium communications antenna array of up to 15 sq. ft. (1.4 m²) wind load area.

- Bell Rotator Design—total weather protection
- Dual 98 Ball Bearing Race—proven support system
- Machined Steel Ring Gear
- Machined Steel Ring Drive Gear System—time tested durability
- Electric Locking Wedge—securely locks antenna in place
- North or South Center Scale—in unit
- Illuminated Directional Indicator—easily locates antenna position
- Zener Regulated Meter Circuit—accurate positional readout
- Snap-Action Control Switches—lifetime operation
- Low Voltage Control—safe operation
- Maximum mast size 2-1/16" (52 mm)

ORDER NO. 304

(120 Vac/60 Hz)
Shipping Wt: 24 lbs. (11.0 kg)
UPS Shippable



CD 45II

Value packed with professional features. The CD45II will handle 8.5 sq. ft. (.79 m²) when mounted inside a tower, or 5 sq. ft. (.46 m²) when mast adaptor is used.

- Bell Rotator Design—total weather protection
- Dual 48 Ball Bearing Race—proven support system
- Diecast Ring Gear
- Stamped Steel Gear Drive System—heavy-duty, trouble-free gear train
- North or south center scale—in unit
- Illuminated Directional Indicator—easily locates antenna position
- Snap-Action Control Switches—lifetime operation
- Low Voltage Control—safe operation
- Maximum mast size 2-1/16" (52 mm)



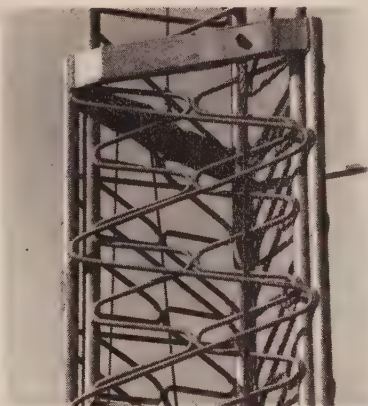
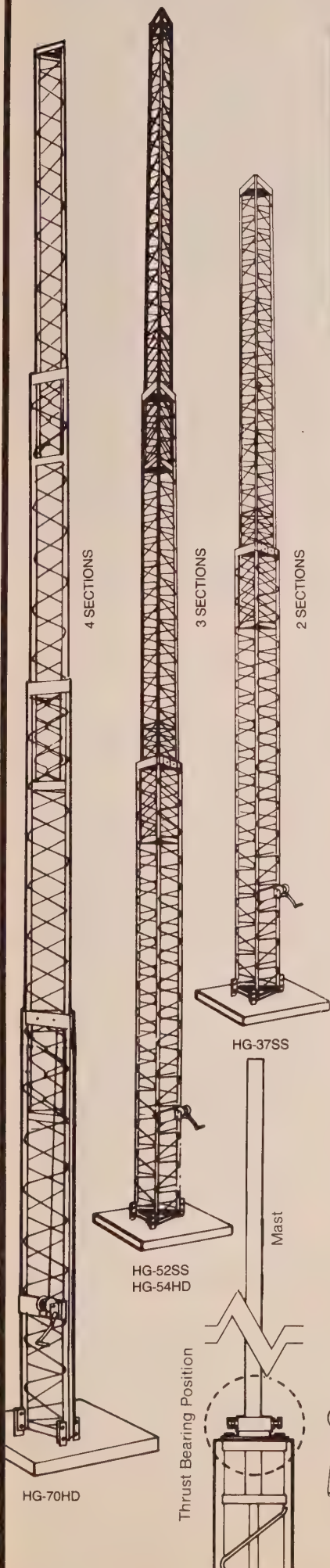
STORE LOCATIONS

	Local Phone	Nationwide	In-State
m = Milwaukee, WI 53216; 4828 W. Fond du Lac Ave.	(414) 442-4200	1-800-558-0411	1-800-242-5195
w = Wickliffe, OH 44092; 28940 Euclid Avenue	(216) 585-7388	1-800-321-3594	1-800-362-0290
f = Orlando, FL 32803; 621 Commonwealth Avenue ..	(305) 894-3238	1-800-327-1917	1-800-432-9424
c = Clearwater, FL 33575; 1898 Drew Street.....	(813) 461-4267		
v = Las Vegas, NV 89106; 1072 N. Rancho Drive.....	(702) 647-3114	1-800-634-6227	

AES®

TELEX[®] hy-gain[®]

Self-Supporting Crank-Up Towers



The "diamond web" or "double w" lattice brace configuration is used in Hy-Gain towers for added strength where the sections overlap. It has 2½ times the strength of the common "W" brace. When the tower is in its fully extended position, the wind load capacity is between 50 and 60 miles per hour (at its full rated load) depending on model.

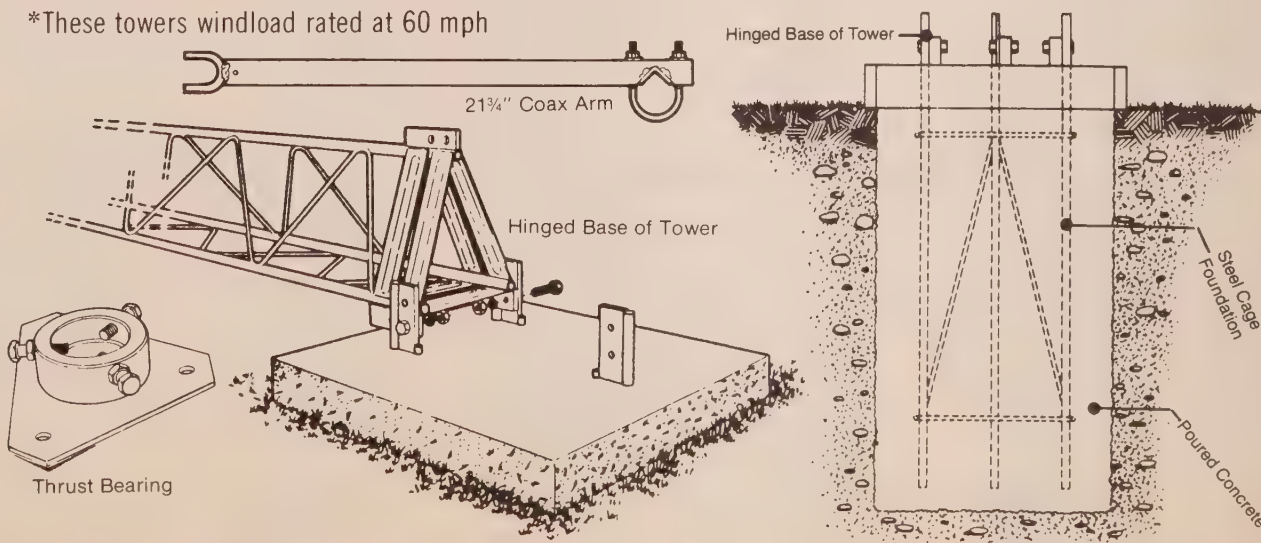


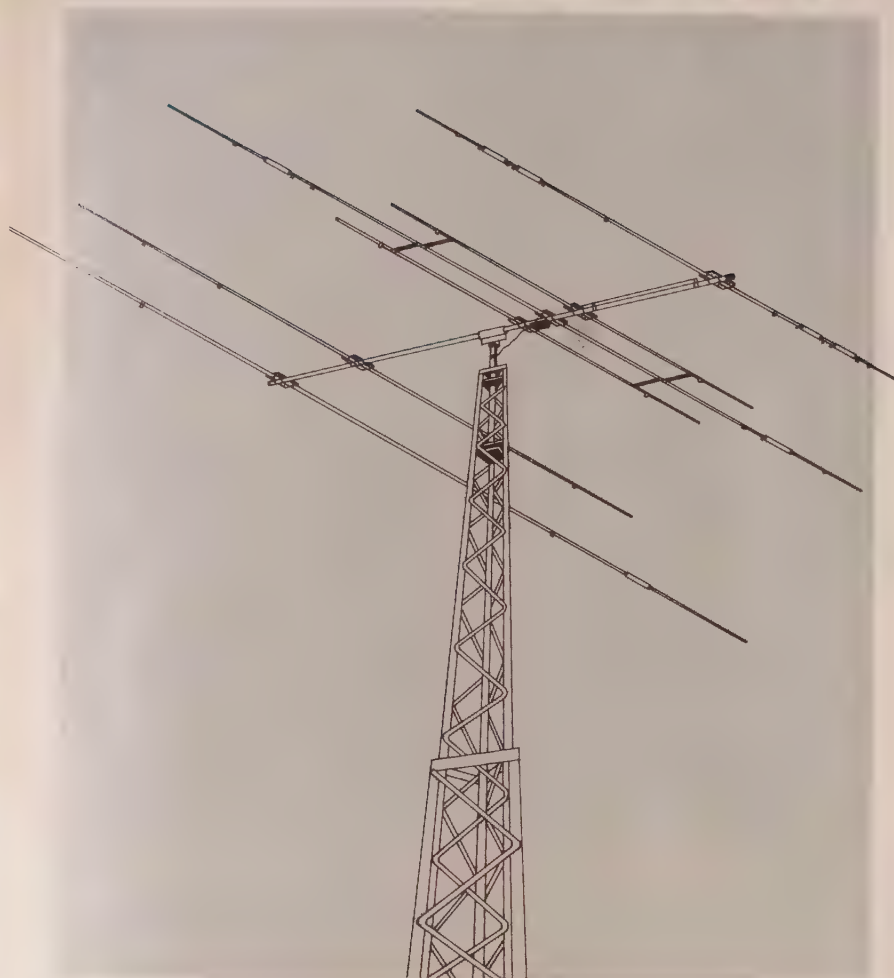
Hy-Gain's rugged Self-Supporting Crank-up Towers are made of steel and are galvanized after welding to ATSM material standards. Open end tubular steel legs are galvanized inside and out and permit unrestricted moisture drainage. Hy-Gain's giant welding fixtures assure straight and true alignment of the tower sections for close tolerance crank-up guide systems. These towers are extended with a manual winch (included), or an electrically operated winch can be adapted. A highly recommended option is the HG-TBT thrust bearing, which bolts to the tower's top section and accepts masts up to 2-3/16" diameter and reduces vertical load on rotor. Other options include steel masts, coax arms and gin pole. All Hy-Gain towers include base hinge, foundation steel-cage and a pre-drilled rotator plate. These towers require no guying at rated loads and conform to EIA specifications and the Uniform Building Code. Documents for building permits are available on request directly from Hy-Gain **See Price List**

Big Savings! - Hy-Gain towers are shipped via truck PREPAID (HY-Gain's expense in the 48 States) directly to you from the factory. In addition, any other Hy-Gain items such as antennas, rotors, or accessories (except Custom Line items) ordered at the same time as a Hy-Gain tower will also be shipped PREPAID from the factory.

Model number	Number of sections	Height extended	Height retracted	Windload at 50 mph	Width at base	Base hole dimensions	Shipping weight
HG-37SS	2	37'	20.5'	9.5 sq. ft.	13.75"	30"×30"×48"d 0.9 cu. yards	265 lbs.
HG-52SS	3	52'	21'	9.5 sq. ft.	16.44"	42"×42"×66"d 2.5 cu. yards	455 lbs.
HG-54HD	3	54'	21.5'	16* sq. ft.	19.53"	42"×42"×72"d 3 cu. yards	575 lbs.
HG-70HD	4	70'	21.5'	16* sq.ft.	22.63"	48"×48"×90"d 4.4 cu. yards	1100 lbs.

*These towers windload rated at 60 mph





EXPLORER 14

Broadband Tribander Beam with Quad-Band Option

A unique Para-Sleeve concept optimizes edge-to-edge bandwidth on 20, 15 and 10 meters. Solid state transceivers load to full output with VSWR below 2:1 so no antenna tuner is needed. Handles maximum continuous legal power with a respectable safety margin. The revolutionary compact design requires only 17'3" (5.3 m) turning radius and the entire assembly fits on roof tripod, mast or medium duty tower. Truly competitive performance against giant tribanders at half the cost. Superior construction includes

stainless steel hardware, heavy gauge pre-formed element and mast brackets and thick wall swaged aluminum tubing. A BN-86 balun is included and a Beta Match provides DC ground to reduce lightning hazard and static. Rugged, easily assembled and so unique we've applied for a patent.

ORDER NO. 395S

Shipping Wt: 50 lbs. (22.7 kg)
UPS Shippable

Quad Band Option

Add a fourth band, either 30 or 40 meters to the Explorer 14 with the QK710 kit. Kit attaches to the driven element and is easily adjusted for either 30 meters (WARC) or 40 meters at minimal cost.

ORDER NO. 396S

UPS Shippable

TH3JRS

3-Element Triband Beam

Hy-Gain's Thunderbird Junior offers top performance with a compact design that makes it ideal where space is a limiting factor. Featuring separate and matched air dielectric Hy-Q traps for each band, it feeds with 52 ohm coax, delivers maximum F/B ratio without compromise. The TH3JRS has a VSWR of less than 1.5:1 at resonance on all bands. All hardware and clamps are stainless steel. Maximum power, 300 watts CW and 600 watts PEP output. Hy-Gain ferrite balun BN-86 is recommended for use with the TH3JRS.

ORDER NO. 221S-1

Shipping Wt: 20 lbs. (9 kg)
UPS Shippable



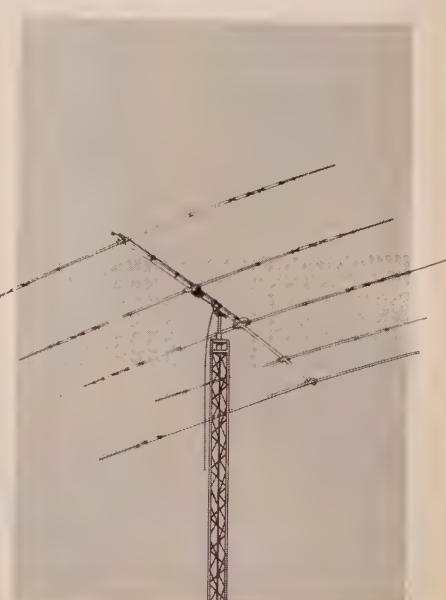
TH5Mk2

5-Element Broadband Triband Beam

The TH5 is now a BROADBAND TRIBAND! The TH5Mk2 offers an outstanding 9.0 dB gain. Separate air dielectric Hy-Q traps on each band allow the TH5Mk2 to be set on a F/B ratio of 27 dB with a minimum beam width. It features five elements on a 19' (5.8 m) boom with four active elements on 10, 15 and 20 meters. Also standard on the TH5Mk2 is Hy-Gain's exclusive Beta Match, and stainless steel hardware and compression clamps. A BN-86 ferrite balun is supplied.

ORDER NO. 393S

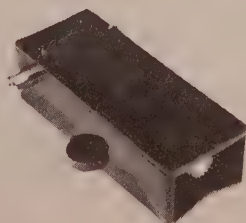
Shipping Wt: 77 lbs. (35 kg)
UPS Shippable



BN-86 BALUN

Broadband 50 ohm ferrite balun. Useable from 3 to 30 MHz. Recommended for all HF Yagi antennas. It provides improved front-to-back ratio. Comes with clamp to bolt to boom and S0239 connector.

ORDER NO. 242S



204BAS

20 Meter

Four elements on a 26' (7.9 m) boom. Feeds with 52 ohm coax and is Beta Matched for 10 dB gain. The 204BAS has a tiltable cast aluminum boom-to-mast clamp, heavy gauge machine-formed element-to-boom brackets and stainless steel hardware and clamps. BN-86 balun is recommended for use with model 204BAS.

ORDER NO. 394S

Shipping Wt: 55 lbs. (24.9 kg)
UPS Shippable





TH7DX 7-Element, Broadband Triband Beam

This amazing new tribander, using a dual driven 7 element system on a 24' (7.3 m) boom maintains a VSWR of less than 2:1 on all bands, including ALL of ten meters. No compromise on

gain performance was needed to achieve this efficiency. A unique combination of trapped and monoband parasitic elements produces a front-to-back ratio of 27 dB. In a parasitic array such as this, high efficiency traps are used rather than parallel stubs. These Hi-Q traps are capable of handling the maximum legal

power with a 2:1 safety margin, and are superior to parallel stubbing for ease of assembly and maintenance. The TH7DX uses stainless steel hardware for all electrical—and most mechanical connections plus taper swaged 6063-T832 thick wall aluminum tubing. The antenna includes exclusive, die-

cast aluminum, rugged boom-to-mast clamp, and heavy gauge element-to-boom brackets. The TH7DX comes complete with a Hy-Gain BN-86 balun.

ORDER NO. 391S
Shipping Wt: 82 lbs. (37 kg)
UPS Shippable

Model 392S

Conversion Kit

You can convert your Hy-Gain TH6DXX to the new high performance broadband TH7DX. The conversion kit includes a complete stainless steel hardware package and complete easy-to-follow instructions.

ORDER NO. 392S
Shipping Wt: 20 lbs. (9 kg)
UPS Shippable

Balun

A Hy-Gain BN-86 balun is required but not supplied with the 392S conversion kit.

ORDER NO. 242

HF Antenna Specifications

ORDER NO.	MODEL NO.	MAXIMUM GAIN		MAXIMUM FRONT-TO-BACK RATIO	NUMBER OF ELEMENTS	BANDWIDTH @ 2:1 VSWR		LONGEST ELEMENT		BOOM LENGTH		BOOM DIAMETER		TURNING RADIUS		MAXIMUM MAST DIAMETER ACCEPTED		BANDS	WIND LOAD @ 80 MILES PER HOUR (129 km./hr.)		MAXIMUM WIND SURVIVAL		SURFACE AREA		SHIPPING WT.	
		dB	dB				MHz	ft.	m.	ft.	m.	in.	mm.	ft.	m.	in.	mm.		Meters	lbs.	kg.	mph	km./hr.	sq. ft.	m²	lbs.	kg.
391-S	TH7DX	9.6	27	7	—	31	9.4	24	7.3	2	50.8	20	6.1	2½	63.5	20, 15, 10	240	108.9	100	161	9.4	.87	82	37		
395-S	EXP14	8.8	27	4	—	31.5	9.6	14.1	4.3	2	50.8	17.25	5.3	2½	63.5	20, 15, 10	192	86.1	100	161	7.5	.69	50	23		
396-S	QK710	1.7	25*	1	—	42.5	12.9	—	—	—	—	21.25	6.5	—	—	40	210	95.3	80	50	8.2	.76	10	4.5		
—	—	1.7	25*	1	—	31	9.5	—	—	—	—	17.25	5.3	—	—	30	205	93	80	50	8	.74	10	4.5		
221-S	TH3JRS	8	25	3	—	27.4	8.3	12	3.7	1¼	31.8	14.3	4.4	2	50.8	20, 15, 10	87	39.5	80	128.7	3.4	.32	20	9		
393-S	TH5Mk2	9	27	5	—	31.5	9.6	19	5.8	2	50.8	18.4	5.6	2½	63.5	20, 15, 10	190	86	100	160.9	7.4	.68	77	35		
390-S	TH2Mk3S	5.5	20	2	—	27.3	8.3	6	1.8	2	50.8	14.3	4.4	2	50.8	20, 15, 10	83	37.6	80	128.7	3.3	.31	22	10		
375-S	105BAS	12	34	5	1.5	18.5	5.6	24	7.3	2	50.8	15	4.6	2½	63.5	10	100	45.4	100	160.9	3.9	.36	29	13		
376-S	155BAS	12	34	5	.4	24.5	7.5	26	7.9	2	50.8	17.5	5.3	2½	63.5	15	133	60.3	100	160.9	5.2	.48	42	19		
377-S	205BAS	11.6	35	5	.5	36.5	11.1	34	10.4	2	50.8	25	7.6	2½	63.5	20	230	104.3	80	128.7	9	.84	77	35		
394-S	204BAS	10	30	4	.5	36.5	11.1	26	7.9	2	50.8	22.5	6.7	2½	63.5	20	186	84.4	100	160.9	7.3	.88	55	25		
371-S	DISC7-1	1.7	35*	1	.22	45	13.7	2.7	.66	2	50.8	22.5	6.7	2½	63.5	30, 40	69	31	100	160.9	2.7	.25	23	10.3		
372-S	DISC7-2	6.5	15	2	.187	44.8	13.7	22.6	6.9	2	50.8	25	7.6	2½	63.5	40	154	69	80	128.7	6	.56	56.5	25.3		
373-S	DIR	8.7	26	3	.160	45.6	13.9	35	10.79	2	50.8	28.7	8.8	2½	63.5	40	230	103	80	128.7	9	.84	98	44		

25
years
Serving the Amateur Community!

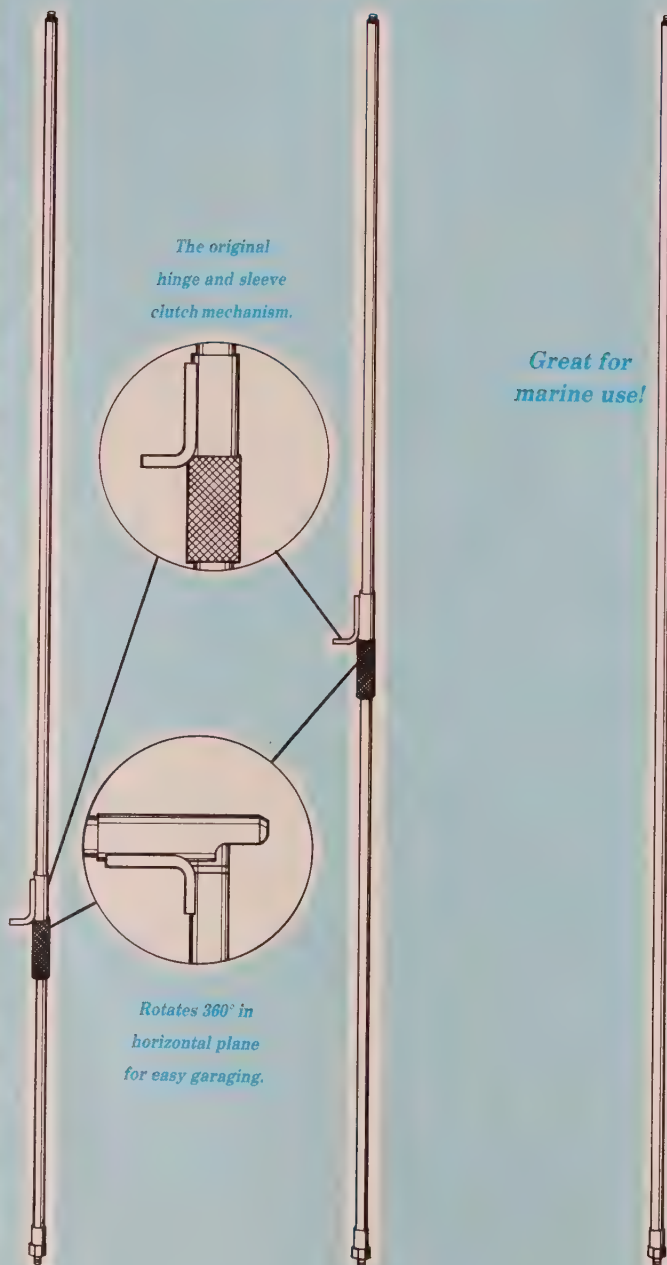


MOBILE H.F. SYSTEM

For 6-10-15-20-30-40-75-80 meters

Only Hustler gives you a mobile concept with 25 years of proven performance. In mobile operation where every transmitting watt and receiving microwatt counts, get the advantage of Hustler's Mobile H.F. System. No matching device is required to get the lowest V.S.W.R. and broadest bandwidth available in mobile operation.

Hustler Masts



MO-1

For deck or fender mounting

MO-2

For bumper mounting

MO-3

White vinyl coating
no fold over mechanism

- Only Hustler gives you a choice of masts including fold-over masts for quick and easy resonator change or entering a garage.
- Each mast is a $\frac{1}{4}$ wave six meter antenna, and operates on that band without removing the resonator.
- Stainless steel base has $\frac{3}{8}$ x 24 thread to fit mobile ball and bumper mounts.

Hustler Resonators

Standard Resonators . . .

Power rating 400 watts SSB

Part No.	Description	Weight	Approx. Bandwidth 2:1 SWR or Better
RM-10	10 Meter Resonator	.41 lbs.	150-250 KHz
RM-11	11 Meter Resonator	.41 lbs.	150-250 KHz
RM-15	15 Meter Resonator	.42 lbs.	100-150 KHz
RM-20	20 Meter Resonator	.46 lbs.	80-100 KHz
RM-30	30 Meter Resonator	.84 lbs.	50- 60 KHz
RM-40	40 Meter Resonator	.84 lbs.	40- 50 KHz
RM-75	75 Meter Resonator	1.05 lbs.	25- 30 KHz
RM-80	80 Meter Resonator	1.05 lbs.	25- 30 KHz

Super Resonators . . .

Power rating full legal limit.

Super Resonators also offer wider bandwidth, especially on 40, 75, and 80 meters.

Part No.	Description	Weight	Approx. Bandwidth 2:1 SWR or Better
RM-10-S	10 Meter Resonator	1.0 lbs.	250-400 KHz
RM-11-S	11 Meter Resonator	1.0 lbs.	250-400 KHz
RM-15-S	15 Meter Resonator	1.2 lbs.	150-200 KHz
RM-20-S	20 Meter Resonator	1.2 lbs.	100-150 KHz
RM-40-S	40 Meter Resonator	1.82 lbs.	50- 80 KHz
RM-75-S	75 Meter Resonator	2.11 lbs.	50- 60 KHz
RM-80-S	80 Meter Resonator	2.11 lbs.	50- 60 KHz



MOBILE H.F. SYSTEM

For 6-10-15-20-30-40-75-80 meters

Mounts and Accessories

Serving the Amateur Community!

25 Years

Bumper Mount

BM-1

- Heavy-duty stainless steel strap fits bumpers to 18" vertical height
 - Secured by two heavy "j" bolts
 - Needs only 5/16" clearance with car
 - 180 adjustable ball for best vertical positioning
 - Accepts any Hustler 3/8" x 24 thread mobile antenna
 - All hardware included
- Weight 2.7 lbs.



Multi-Band Adaptor

VP-1

- Automatic bandswitching using any three Hustler H.F. mobile resonators.
- Adapts any Hustler H.F. mast (M0-1, M0-2, M0-3) to tri-band operation easily and quickly

Guying to the front of your vehicle is recommended, especially when Hustler Super Resonators are used.



Ballmounts and Springs

- Exceptional performance and quality
- 180 adjustable reinforced stainless ball
- Professional quality Cyclac bases for greatest mechanical stability
- Exclusive "C" backup plate allows external installation
- Supplied with all mounting hardware and cork pad
- Applicable with all Hustler and other 3/8" x 24 thread antennas

SSM-1 Professional Ball Mount and Spring - Weight 2.53 lbs.

SSM-2 Ball Mount - Weight 1.3 lbs.

SSM-3 Stainless Steel Spring with Coupling Stud - Weight 1.21 lbs.

SSM-1



Quick Disconnect

QD-1

- 100% stainless steel
- Designed to prevent ice or dirt "freeze-up."
- Simply push down and rotate 1/4 turn to disconnect
- Male 3/8 x 24 one end, female 3/8 x 24 on antenna end



Resonator Spring

RSS-2

- When mounted between the mast and resonator, the RSS-2 will help prevent resonator damage from trees and low objects. Adds flexibility where it is needed-at the top!

- Stainless Steel



Feed Lines

L-14-144

- 12' of RG-58/u coax
- PL-259 connector on one end and split lead with lugs on the other
- Weight: 0.51 lbs.

L-14-240

- Identical to L-14-144, with 20' of coax
- Weight: 0.71 lbs.



Technical Services

The **Hustler Mobile H.F. System** is very versatile. The resonators can be tuned over a wide range of frequencies for special applications such as M.A.R.S., C.A.P., etc... A cut chart is available upon request.

Two masts can be used to form a shortened dipole for field day, indoors, and other applications where a full size dipole is not practical.

Should you have any questions regarding these or other antennas please write our **Technical Services Dept.**

Please send me your free catalog on the Hustler Mobile H.F. System to:

Name

Address

City

State

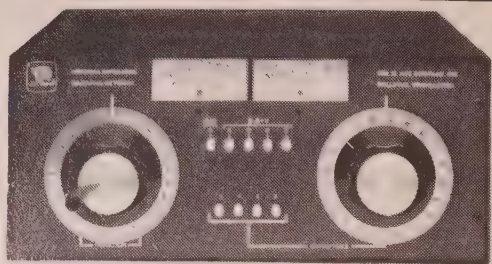
Zip

Hustler, Inc.

One Newtronics Place
Mineral Wells, Texas 76067
(817) 325-1386

DH

Order HUSTLER from AES® • Call TOLL FREE 1-800-558-0411 • Mastercard or VISA accepted

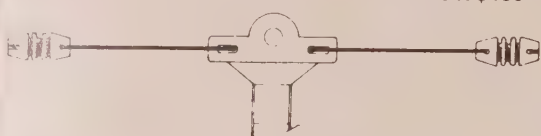


NYE VIKING 3KW Antenna Tuners

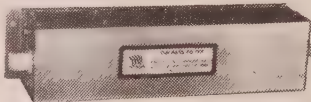
MB-V-A Matches 1.8 to 30 MHz transmitter output impedance to almost any 40 to 2000 ohm antenna system for maximum power transfer. Heavy duty silver-plated continuously variable inductor with 25:1 vernier dial, 7000V variable capacitor and 15,000V switch selected fixed capacitors. Automatic SWR indication, no reset or calibration needed. Separate 300/3000W power meter, automatically switched. Easy-to-read, precision jeweled 2 1/2" meters show SWR and power continuously. Push-button antenna switching to 4 antennas (2 coax, single wire and twin lead) + bypass. Heavy-duty 3KW trifilar-wound, triple core toroid provides balanced output for twin feeders from 200 to 1000 ohms and unbalanced lines down to 20 ohms... **\$559⁹⁵**

Model MB-IV-A1 has all the features of the MB-V-A except antenna switching and the balun for balanced line.... **\$429⁹⁵**

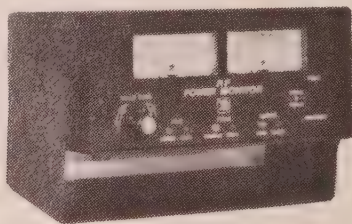
Model MB-IV-A2 has trifilar balun for balanced line... **\$469⁹⁵**



NYE VIKING ANT-001 all-band 2KW PEP antenna. The perfect match for NYE VIKING or other tuners with balanced output. Assembled, consists of 135' of #14 stranded copper wire withulators, center fed with 100' of 450 ohm low loss PVC covered balanced line. Comes with 100' of nylon guy rope..... **\$440⁰⁰**



NYE VIKING 020-001 Low Pass Filter. 52 ohms, for 1.8 to 10MHz, handles 2KW and 5KW SSB peaks. 3 Constant-K plus 2 precision tuned M-derived sections give flat low loss passband 1 stop band. Over 65 dB attenuation above 57MHz.. **\$325⁰⁰**



NYE VIKING RF Power Monitor System. Provides Peak, Average or Peak and hold readings with $\pm 5\%$ of F.S. accuracy. Automatically switched power scales to 5KW, calibrated couplers. Fully automatic SWR and reflected power measurement. Adjustable amplifier lock out circuit. LED indicators for SWR/REV warning, SWR/REV lockout, Peak sample and hold, and High and Low power scales. Powered by Nicad batteries charged by the applied RF with separate charger for fast charging and meter backlighting. Available in two models, which differ only in wattmeter scaling: 0-300 or 0-500. Supplied with one HF directional coupler. 5" h \times 8 1/2" w \times 5 3/4" d. • See VIKING in Price List.

NYE VIKING Automatic SWR/POWER Meter for the Blind or Visually Impaired.

Variable audio oscillator provides tone variations with changes in SWR or Power Output. Listen for minimum SWR or maximum power when using with antenna tuners or adjusting antennas. Range is 1.8 to 30MHz, and 0 to 3000 Watts. Instructions included on cassette tape. **SWR-003 ... \$136⁹⁵**

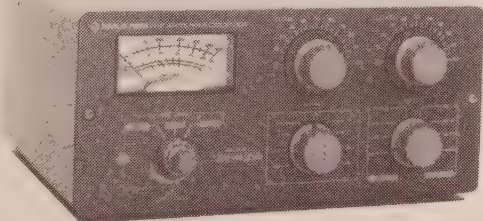


NYE VIKING Hybrid Phone Patch. Includes automatic line level control for comfortable operator monitoring, plus improved nulling for superb VOX operation. When installed in-line, will permit full microphone function. Available with or without built-in speaker and for 4 or 8-pin microphone wiring... See Price List

TOKYO HY-POWER LABS ANTENNA COUPLERS



HC-200/A Compact, use either base or mobile. 8-bands: 3.5, 7, 10, 14, 18, 21, 24.5, 28 MHz. Rated at 200W PEP @ 50 ohms. Tunes 10-250 ohms unbalanced. Meter reads 20/200W Forward/Reverse power and VSWR. Single coaxial input, selectable coupler-in or direct, 3 coaxial outputs and terminal for single wire or mobile whip. 8 1/2" w \times 3 1/2" h \times 7 1/4" d, 4 1/2 lbs **\$124⁹⁵**

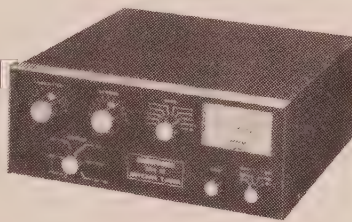


HC-400L 9-bands: 1.9, 3.5, 7, 10, 14, 18, 21, 24.5, 28 MHz; 350W PEP, 150W CW continuous maximum @ 50 ohms. Tunes 10-250 ohms unbalanced. Meter reads 50/500W Forward Reflected and VSWR. Single coaxial input, selectable coupler-in or direct, 3 coaxial outputs, terminal for single wire antenna, and an auxiliary terminal for attaching a balun. Built-in 50 ohm, 80W dummy load. 10" w \times 4 1/2" h \times 8 3/4" d, 7 1/2 lbs **\$229⁹⁵**



HC-2000 9-bands: 1.9, 3.5, 7, 10, 14, 18, 21, 24.5, 28 MHz. Rated at 2000W PEP @ 50 ohms, reduced to 500W at 1.9MHz. Tunes 10-500 ohms unbalanced. Two large meters read 20/200/2000W Forward Reflected and VSWR. Single coaxial input, selectable coupler-in or direct, 4 coaxial outputs, terminal for single wire antenna and 2 terminals for balanced feed line which requires a 4:1 balun, not supplied **\$389⁹⁵**

AMERITRON Antenna Tuners



ATR-10 Covers 1.8 to 30 MHz, rated 900W PEP, matches 20 to 800 ohms. Select direct, three coaxial lines, single terminal or balanced output. Peak-reading 200/2000W wattmeter, SWR bridge and built-in 1:1/4:1 balun. 5" h \times 11" w \times 10" d.... **\$289⁹⁵**

ATR-15 Covers 1.8 to 30 MHz, rated 1500W PEP - 1KW on 1.8 MHz. Matches 20 to 800 ohms. Select direct, three coaxial lines, single terminal or balanced output. Peak 200/2000 wattmeter, SWR bridge, 1:1/4:1 balun. 5 1/4" h \times 14 1/4" w \times 13 1/2" d ... **\$339⁹⁵**



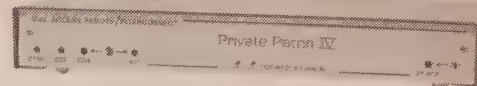
B&W VS-300A 300W, 1.8 to 30MHz antenna tuner for coaxial cable, balanced line or single wire antenna. Built-in antenna switch, 4:1 balun and forward/reflected power meter.. **\$89⁹⁵**



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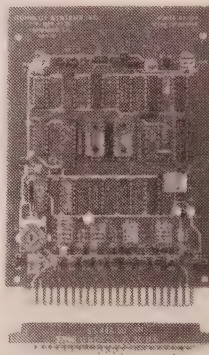


Connect Systems



PRIVATE PATCH IV Access Remote/Interconnect

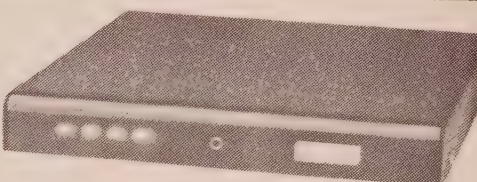
- Initiate totally unassisted telephone calls via your base station from your HT or mobile transceiver.
- Receive incoming telephone calls from your base station.
- TELEPHONE INITIATED CONTROL ...
 - ★ Operate your base station with complete control from any touch telephone ... anywhere!
 - ★ Change frequencies from the telephone touchpad.
 - ★ Selectively call mobiles using regenerated DTMF from any telephone.
 - ★ Eavesdrop the channel from any telephone.
 - ★ Use as a wire remote using ordinary up lines and a speaker phone as a control hand.
- Easy interface, connects to MIC and EXT speaker jack of any base, mobile or handheld transceiver • **\$489⁹⁵**



Connect Systems - CS-16

Touchtone Decoder/Logic Board

Permits reliable control of remotely located devices such as amateur and business band repeaters systems. **Features:** 16 Latched Functions; Primary and Secondary Passwords; Secondary Password Override; Password Programming; Open Collector and Logic Outputs; Data Strobe; Audio Preamp; Strobe LED; Power-up Reset; Supplied as shown, with connector **\$164⁰⁰**



CES 510SA-II Telephone Interconnect

Communications Electronic Specialties, Inc.

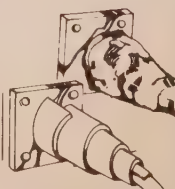
A fully automatic telephone interconnect that gives telephone access to handheld and mobile radio users for Simplex, Half Duplex, or Full Duplex mobile radio systems. Loaded with microprocessor controlled programmable features which are remotely programmable from any touch telephone. During Simplex operation, VOX and sampling circuitry automatically slows the sample rate in the presence of desired telephone audio to give smoother operation with fewer sampling "interruptions". Compatible with DTMF and dial pulse networks, is designed to allow telephone to mobile signaling for selective calling, includes automatic CWID, and is engineered to convert base stations to remote base stations accessible from any telephone without tone remote or DC remote control equipment **\$199⁹⁵**



MFJ-931 Artificial Ground. Improves radiation pattern distortion, eliminates "RF bites", RF feedback, TVI/RFI and other problems due to an inadequate RF ground. Effectively places your radio equipment near actual earth ground potential even if it is on the second floor or higher. Works by resonating a random length wire thrown along the floor and producing a tuned counterpoise. Covers 1.8 to 30MHz and has a built-in RF ammeter for indicating RF ground current. 3 1/2" h \times 7 1/2" w \times 7" d..... **\$72⁹⁵**

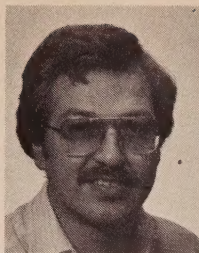
COAX-SEAL™

Moldable plastic, effectively seals all types of coax fittings. Stays flexible for years to maintain moisture-proof connections. Flexibly makes it possible to remove and re-install fittings, and reseal them by simply reforming the same material. Roll, 1/2" \times 60" **\$24⁹⁵**

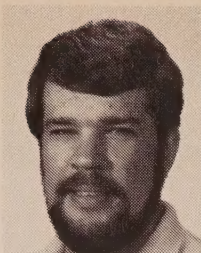




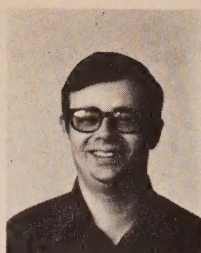
CARL WB9STM



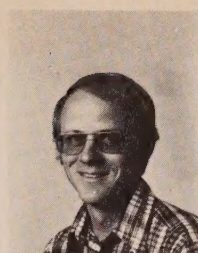
DALE N9BRX



KEN WA9KGQ



GARY W9NR



JIM WB9LSR



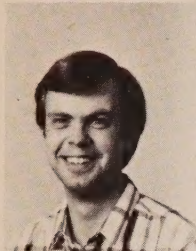
DICK WB0BJT



JEFF N9EDQ



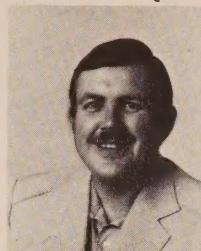
PAUL S. W9KHO



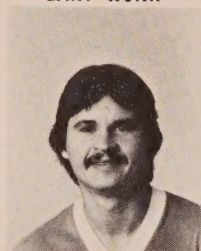
PAUL W. WA9TFG



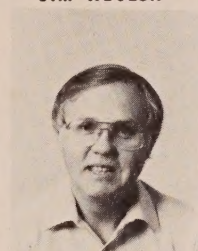
RAY K9KHW



RON WA9VRY



JOHN N9COB



MILES K9HMQ



RUSS WB9PAS



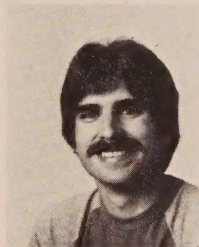
JOE KD0XH



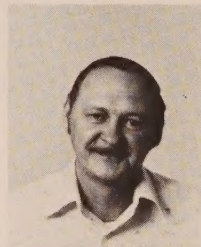
ANTONE



BERNIE



PAT



STEVE



BARBARA



DAWN



CAROL



ELIN K9YHE



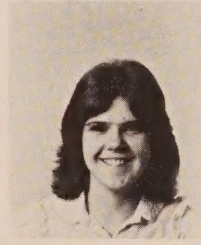
GRETA



ARLENE



JUDY



LORI



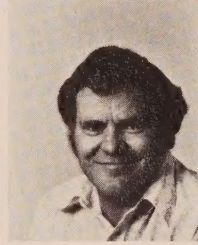
PEGGY WB9RWV



INA



JOHN



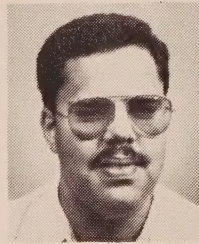
TED W9NHE



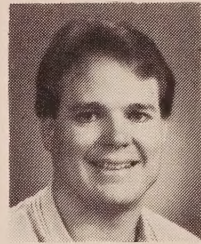
JIM N4LIO



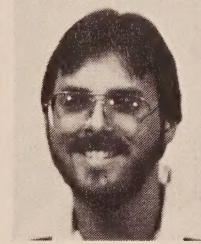
GRANT K4IQW



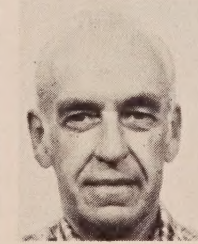
PEDRO WY4A



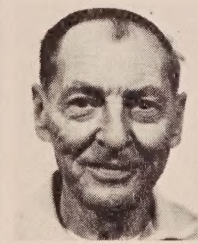
DAVID KA4VXT



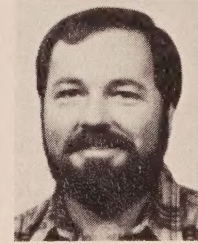
BRUCE WD4HIM



CHARLIE K4IBJ



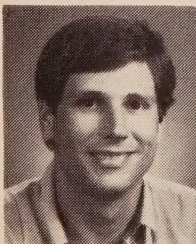
STEVE W9EAN



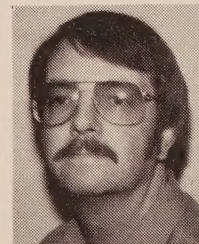
RODNEY



GIL K4ISK



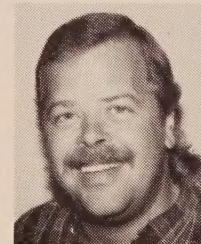
ANDY N4JJQ



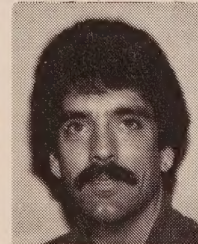
SQUEAK AD7K



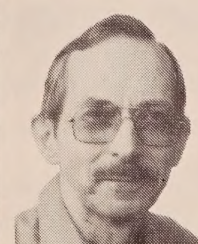
RAY KE7RO



BOB KG7D



TOM N7GBJ



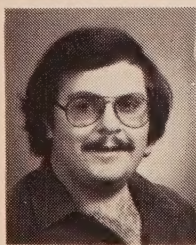
FRED K4KIK



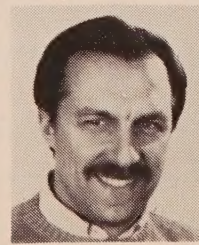
BOB W4EGM



LEN K4BDP



STEVE KA4NRF



KEVIN N2ABV



DAVE WB8BAG



BOB WB8WEN



RUSS KA8QGM



PHIL WD8AAN



JOHN WA8PKB



NANCY



CARL KD9XI



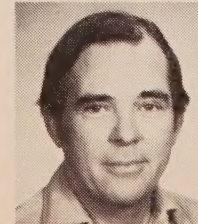
CARLENE



PANDORA



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DON KA2KDP



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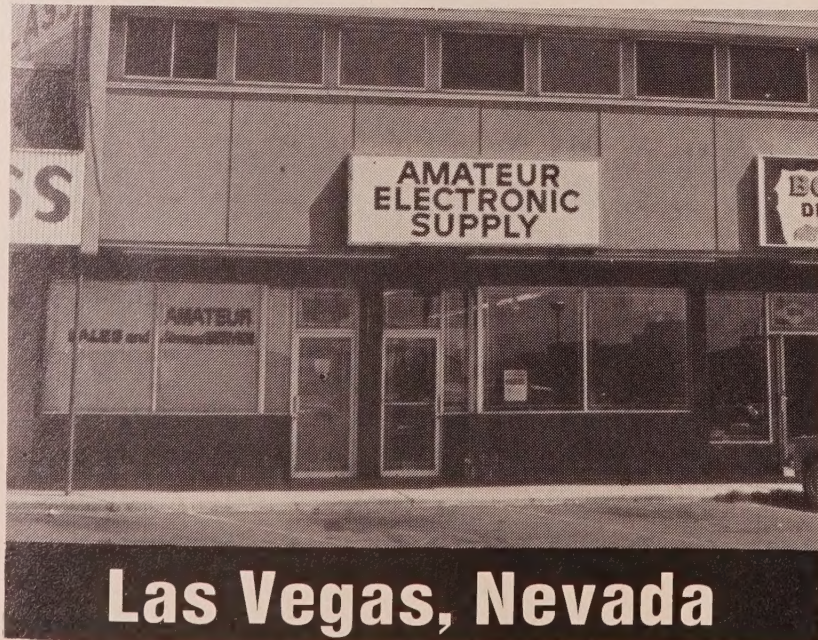
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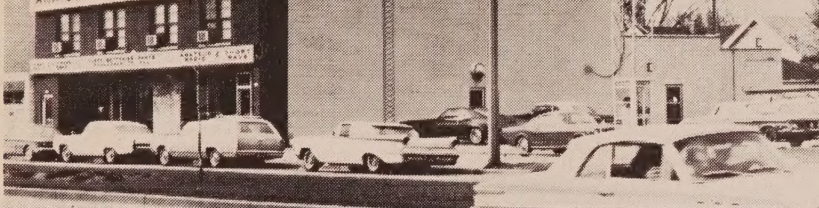
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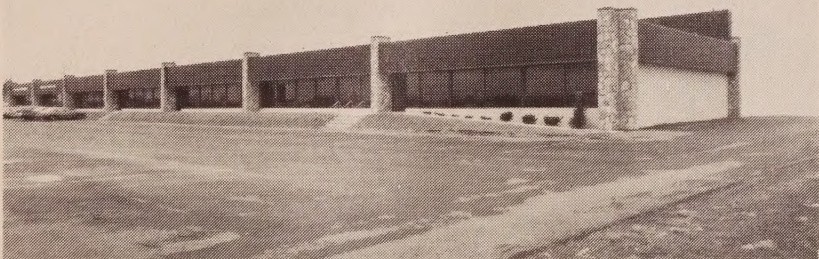
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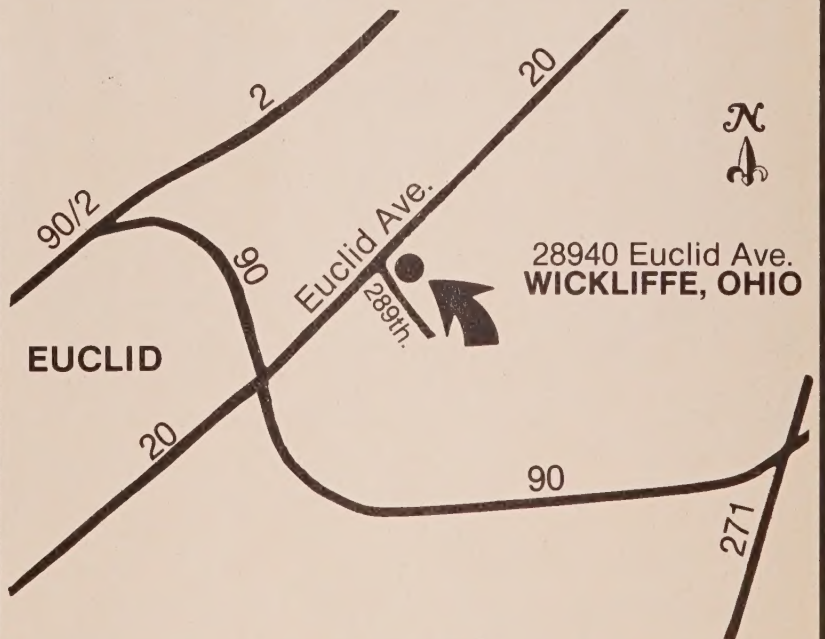
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KT-LC Soft Case 11.95

KT-SM1 Speaker/Microphone 26.95

ST-MC Mobile Charge Cord 6.95

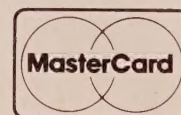
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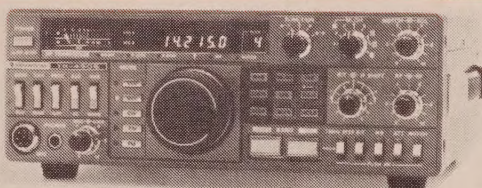
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